

INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.
2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University
Microfilms
International

300 N. ZEEB ROAD, ANN ARBOR, MI 48106
18 BEDFORD ROW, LONDON WC1R 4EJ, ENGLAND

8002577

RIKARD, GRACE LINDA

TEACHER PERCEPTIONS OF THE ORGANIZATIONAL
MANAGEMENT SYSTEMS IN THEIR SCHOOLS AND
DEPARTMENTS OF HEALTH, PHYSICAL EDUCATION,
AND RECREATION.

THE UNIVERSITY OF NORTH CAROLINA AT
GREENSBORO, ED.D., 1979

COPR. 1979 RIKARD, GRACE LINDA

University
Microfilms
International

300 N. ZEEB ROAD, ANN ARBOR, MI 48106

© 1979

GRACE LINDA RIKARD

ALL RIGHTS RESERVED

TEACHER PERCEPTIONS OF THE ORGANIZATIONAL MANAGEMENT SYSTEMS
IN THEIR SCHOOLS AND DEPARTMENTS OF HEALTH,
PHYSICAL EDUCATION, AND RECREATION

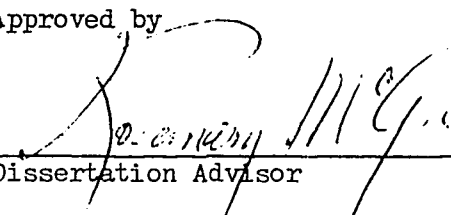
by

G. Linda Rikard

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Education

Greensboro
1979

Approved by


Dissertation Advisor

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

Dissertation Adviser

Rosemary McGee
(Dr. Rosemary McGee)

Committee Members

Joseph E. Bryson
(Dr. Joseph Bryson)

Dwight F. Clark
(Dr. Dwight Clark)

Gail M. Hennis
(Dr. Gail Hennis)

Marie Riley
(Dr. Marie Riley)

May 25, 1979
Date of Acceptance by Committee

May 25, 1979
Date of Final Oral Examination

RIKARD, G. LINDA. Teacher Perceptions of the Organizational Management Systems in their Schools and Departments of Health, Physical Education, and Recreation. (1979)
Directed by: Dr. Rosemary McGee. Pp. 148.

The purpose of this study was to investigate teacher perceptions of selected organizational characteristics that described the management systems of their Schools and Departments of Health, Physical Education, and Recreation. The study compared actual and ideal teacher perceptions by organizational structure and by academic rank.

A total of 186 respondents from six Schools and seven Departments of Health, Physical Education, and Recreation in colleges and universities located in the southern and midwest districts of the U.S. participated in this study. A 20-item questionnaire, Profile of Organizational Characteristics, was mailed to each subject. Each item was answered twice on a 20-point continuum for actual and for ideal perceptions. These 20 items tested for seven organizational characteristics which included leadership, motivation, communication, interaction, decision making, goal setting, and control. Content of the questionnaire tested Likert's interaction-influence network theory and described the management patterns of organizations by his 4-System Model. This model consisted of the exploitative authoritative system, the benevolent authoritative system, the consultative system, and the participative group system. According to Likert, the exploitative authoritative system was least productive, whereas the participative group system was the most productive of the management systems.

The SAS Computer Program produced means, standard deviations, and an analysis of variance for each of the seven organizational characteristics. These computations located significant differences that existed between actual and ideal perceptions for teachers in Schools compared to those in Departments. Actual and ideal perceptions were also examined when teachers were grouped by academic rank in their Schools or Departments. When significant F ratios occurred for organizational characteristics in these areas, the Scheffé post hoc test was used to determine the location of mean differences.

Statistical analysis of data indicated the following results. Actual and ideal teacher perceptions were statistically different with ideal perceptions higher for six organizational characteristics that described Schools of Health, Physical Education, and Recreation. The results for teachers in Departments of Health, Physical Education, and Recreation were the same as those for teachers in Schools with statistical differences higher for ideal perceptions when compared to actual perceptions on six organizational characteristics. Statistical differences also existed between actual teacher perceptions in Schools and actual teacher perceptions in Departments with Schools higher for six organizational characteristics. For each of these findings, the six significant characteristics were the same. They included leadership, motivation, communication, interaction, decision making, and goal setting. Control was the only organizational characteristic that was not statistically significant. In addition, when teachers were grouped and compared by academic rank, no significant differences occurred within Schools, within Departments, or between Schools and Departments on actual and ideal perceptions.

Based on data analysis, teachers from Departments described their organization's actual management system between benevolent authoritative and consultative, whereas teachers from Schools described their organization's actual management system as consultative. Teachers from both Department and School structures agreed, however, that their ideal management system was participative groups.

ACKNOWLEDGMENTS

Sincere appreciation is extended to Dr. Rosemary McGee, chairperson and advisor, for her encouragement and professional advice. Thanks also go to Dr. Joseph Bryson, Dr. Dwight Clark, Dr. Gail Hennis, and Dr. Marie Riley for their support and helpful assistance throughout this dissertation project. Finally, I am grateful to those teachers who participated in this study.

TABLE OF CONTENTS

	Page
APPROVAL PAGE	ii
ACKNOWLEDGMENTS	iii
LIST OF TABLES	vii
LIST OF FIGURES	ix
 CHAPTER	
I. INTRODUCTION	1
Statement of the Problem	7
Definition of Terms	8
Scope of the Study	13
Assumptions of the Study	13
II. REVIEW OF LITERATURE	14
The Development of Organizational and Administrative Theories	14
Traditional Theories	15
Bureaucratic Theory	16
Human Relations Theory	19
General Organizational Theories	20
Summary	29
Administrative Theory and Research in Education	30
Research in Higher Education	34
Research in Secondary Education	36
Summary	37
Administrative Principles and Research in Physical Education	38
Research in Teacher Behavior	40
Research on Communication Patterns	43
Research on Organizational Climate	45
Summary	48

CHAPTER	Page
Research on Likert's Theory	48
Research in Business and Industry	49
Research in Primary and Secondary Schools	54
Research in Higher Education	57
Summary	64
III. PROCEDURES	66
Selection of the Questionnaire	67
Adaptation of the POC	69
Selection of Subjects	70
Administering a Pilot Study	72
Collection of Data	72
Anonymity of Respondents	73
Collection of Questionnaire Forms	74
Treating the Data	75
IV. DATA ANALYSIS AND DISCUSSION	77
Introduction	77
Response Percentages	80
Data Analysis	80
Scale-By-Structure	82
Scale-By-Structure-By-Rank	93
Discussion of Groups Profiles	101
Summary	109
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	116
Summary	116
Conclusions	117
Recommendations	120
BIBLIOGRAPHY	121

APPENDIX

A. MATERIALS CONCERNING THE PROFILE OF ORGANIZATIONAL CHARACTERISTICS 130

B. MATERIALS CONCERNING SUBJECTS 134

C. GENERAL LINEAR MODEL FOR THE SEVEN ORGANIZATIONAL VARIABLES 144

LIST OF TABLES

	Page
1. Design for Three-Way Analysis of Variance with Repeated Measures	78
2. Response Percentages	81
3. Analysis of Variance Results for Actual and Ideal Perceptions of Organizational Variables in Schools and Departments	83
4. Actual and Ideal Perception Means and Standard Deviations for Organizational Variables in Schools	84
5. Scheffé Test for Actual and Ideal Perceptions in Schools	84
6. Actual and Ideal Perception Means and Standard Deviations for Organizational Variables in Departments	86
7. Scheffé Test for Actual and Ideal Perceptions in Departments	86
8. Actual Perception Means and Standard Deviations for Organizational Variables in Schools and Departments	88
9. Scheffé Test for Actual Perceptions between Schools and Departments	88
10. Ideal Perception Means and Standard Deviations for Organizational Variables in Schools and Departments	90
11. Scheffé Test for Ideal Perceptions between Schools and Departments	90
12. Analysis of Variance Results for Actual and Ideal Perceptions of Organizational Variables in Schools and Departments based on Academic Rank	94
13. Actual and Ideal Perception Means and Standard Deviations for Organizational Variables in Schools by Academic Rank	95
14. Actual and Ideal Perception Means and Standard Deviations for Organizational Variables in Departments by Academic Rank	97
15. Actual Perception Means and Standard Deviations for Organizational Variables in Schools and Departments by Academic Rank	99

	Page
16. Ideal Perception Means and Standard Deviations for Organizational Variables in Schools and Departments by Academic Rank	100
17. Mean Scores for the 20 POC Items by Scale and Structure	106
18. General Linear Model for the Leadership Variable	145
19. General Linear Model for the Motivation Variable	145
20. General Linear Model for the Communication Variable	146
21. General Linear Model for the Interaction Variable	146
22. General Linear Model for the Decision Making Variable	147
23. General Linear Model for the Goal Setting Variable.	147
24. General Linear Model for the Control Variable	148

LIST OF FIGURES

	Page
1. Continuum for Each POC Item	69
2. Graphs of Each Variable by Scale and Structure	91
3. Graphs of Each Variable by Scale, Structure, and Rank	102
4. Group Profiles for the 20 POC Items	107

CHAPTER I

INTRODUCTION

Administrative and organizational behavior has been a topic of interest to social scientists and industrial psychologists for many years. In part, this interest is attributed to the fact that numerous adults are employed by organizations. These adults have spent over a third of their day in work hours (March & Simon, 1958). In addition, people of all ages have become members of organizations at some time in their lives.

It has appeared that one reason organizations are important to individuals is that these structures have served as social units for achieving goals. In order to achieve these goals, individuals have conformed and showed loyalty to the organization (Blau & Scott, 1962). The coordination of the individual with the organization has been necessary since individuals needed organizations and organizations could not function without individuals (Argyris, 1962).

Presently, a challenging problem encountered by organizations has been that of dealing with member behavior. Researchers such as Argyris (1959) addressed this concern in the late 1950's by stating that:

Most human problems in organizations arise because relatively healthy people are asked to participate in work situations which coerce them to be dependent, subordinate, submissive and to use few of their more than superficial abilities. (p. 148)

From the 1950's into the 1960's, dealing with human demands became a concern since member satisfaction had been linked to member performance.

Gore (1964) contended that organizations sought a balance between employee needs and organizational goals. If this balance was not maintained, stress between the organization and employees resulted. Decision-making processes were developed, therefore, to remedy stress situations.

Decision-making processes which resulted in quality decisions provided information flow between subordinates and superiors. Gore (1964) believed that an individual's choice was a potent force in determining the effectiveness of the organizational process. The fact that members of the organization began to show an interest in shared decision making seemed to affect management patterns. For example, their desire to share in participative patterns of management was in great contrast to the direct supervision imposed on them forty years before.

From the 1940's to the 1970's the behavior of individuals in organizations has been studied in a variety of ways. One theory was that of scientific management. This theory was concerned with fundamental questions of human engineering (Taylor, 1947). Another theory, Weber's (1947) bureaucratic theory, influenced the management of organizations in regard to division of labor and lines of authority. These theories, however, failed to recognize the individual as a contributing human being. In addition, Follett (1942) felt these theories did not consider the individual as part of the work group or the total work force.

Discontent with the scientific management and bureaucratic theories mounted in opposition to abusive management practices. A force resulting from this discontent was the human relations movement. This movement emphasized the improvement of working conditions and humane treatment

of employees. Advocates of this movement were Follett (1942), Mayo (Roethlisberger & Dickson, 1939), and McGregor (1960). These individuals applied principles of philosophy and psychology to management. They felt that on-the-job human potential had not been adequately tapped and that workers needed opportunities for self-satisfaction and self-direction.

An outgrowth of the human relations movement was the increased interest in the study of organizational management. Social scientists and human behaviorists conducting studies argued that man must satisfy more than physical and social needs in his job. They felt that the organization should also deal with its members' personal and psychological needs. These researchers believed that members desired to gain fulfillment and recognition from their jobs in order to realize their potential through meaningful work.

The study of organizations progressed from a traditional focus on task and efficiency to a human relations emphasis on organization members. Currently, there appears to be a shared concern among behavior theorists for balancing and maximizing people's needs with organization purposes. Likert, Argyris, and Halpin were three theorists who investigated organizational behavior in business and industry. Each investigated organizational behavior differently. Halpin (1966) viewed group achievement as a criterion for administrative effectiveness. He studied organizational climate based on characteristics of the group and the behavior of the leader. While Halpin studied organizational climate, a different

focus was taken by Argyris (1962). He stressed the need for decentralization of authority in organizations. According to Argyris (1962) decentralization was best achieved through open superior-subordinate relationships. These relationships were built on trust, where conformity, dependence, and fear were low and where experimentation was encouraged. Likert (1967) also contributed research on organizational climate. His interaction-influence theory reflected the concerns of Halpin and Argyris. This theory encouraged supportive work relationships for maximizing the motivation of organizational members. It also stressed group participation as a preferred management pattern.

Theorists Likert, Argyris, and Halpin did not confine their research interests to industrial and business firms. Along with other educators, they applied research to the educational setting. According to these researchers, educational institutions shared similarities with business and industry in regard to their management. For example, educational institutions developed lines of communication, levels of authority, and distributions of its work load. It was felt that all organizations shared at least one characteristic: their administration must organize human effort in realizing the ultimate goals of the institution (McGregor, 1960). Thus, researchers such as Likert, Argyris, and Halpin sought to provide current knowledge about organizing human effort in education and in industry. Further discussion of Likert and Halpin regarding their research contributions to organizational behavior in education will be presented later.

One approach toward the organization of human effort involved the coordination of groups in decision-making processes. An administrative

responsibility in higher education was to coordinate groups effectively in the academic setting. In this setting, decision-making processes seemed particularly useful. Platt and Parsons (1970) pointed to several reasons for this contending that the academic enterprise was a professional organization where the faculty was given professional autonomy. Faculty members were not controlled in a bureaucratic sense but rather were characterized as forming collegial groups. According to Platt and Parsons (1970), faculty shared authority within their organization because they were highly educated specialists in their domains of teaching and research. In addition, the organizational structures of colleges and universities possessed some bureaucratic characteristics such as administrative hierarchies and formal divisions of labor. Yet, these structures lacked other bureaucratic properties. For example, faculty were not closely supervised and did not adhere to detailed operating rules (Blau, 1973). As a professional organization, the college or university had potential for faculty contributions through participative group decision making.

Administrative and organizational research has been conducted for some time in education. Physical educators, however, have historically shown less interest in investigating administrative theory. Spaeth (1967) and Penny (1968) indicated from their research on completed administration studies and concepts in administrative theory that physical educators have done little research toward developing administrative theory up until 1968. Their research is explained later in this text. Zeigler (1968) agreed with the concerns of Spaeth and Penny. He expressed concern for applied research in the area of organizational management in the field of physical education.

Researchers Spaeth (1967), Penny (1968), and Zeigler (1968) pointed to the need for further study in applying administrative theory to health, physical education, and recreation programs. This investigator found only two studies conducted in physical education on the administrative topics of organizational climate (Soucie, 1975), and organizational structures and their management systems (Dannehl, 1970).

The perceptions teachers hold about the management patterns of their working organization are of particular concern as schools and departments of health, physical education and recreation increase in size and complexity and as increased demands are made of teachers. Dannehl (1970) reported that the number of departments of health, physical education and recreation that have developed into schools has increased rapidly in the past fifteen years. As structures enlarge their administrative organization, patterns of management have become important for the coordination of organization programs and purposes.

Physical education research appeared limited in the area of organizational management and the need for such research was expressed by physical educators (Zeigler, 1968; Spaeth, 1967; Penny, 1968). The present study, therefore, was an attempt to investigate organizational characteristics. It focused on a comparison of faculty perceptions of organizational characteristics in Schools and Departments of Health, Physical Education, and Recreation (HPER). This study tested Likert's theory (1966) of interaction-influence networks. His theory was concerned with the structure and interaction processes of organizations. It linked faculty and administrators as effective group decision makers (Likert & Likert, 1976). The study further examined the interrelation of seven characteristics affecting the interaction-influence network used in organizations. These network

characteristics included: (a) leadership, (b) motivation, (c) communication, (d) interaction, (e) decision making, (f) goal setting, and (g) control.

This research utilized Likert's Profile of Organizational Characteristics (POC) for testing his theory. Throughout this study, the Profile of Organizational Characteristics was referred to as the POC. Likert's (1967) POC was developed from his research at the University of Michigan's Institute of Social Research. This instrument gave a quantitative description of the interaction-influence network and its function in an organization (Likert & Likert, 1976). Likert successfully applied his theory and instrument to schools and colleges. His contention was that the fundamental characteristics of any organization were the same.

The knowledge revealed by this study may be useful in understanding the perceptions that teachers have about the way their organizations are managed. It is the intent of this study to provide objective data which show how the school and department structures differ in their respective organizational profiles and what specific variations of patterns emerge.

Statement of the Problem

The purpose of this study was to investigate the actual (present) and the ideal (desired) perceptions of teachers for each of seven organizational variables which characterize randomly chosen Schools and Departments of HPER. These Schools and Departments were chosen from the southern and Midwest Districts of the U.S. The instrument used in this investigation was Likert's Profile of Organizational Characteristics (Likert & Likert, 1976).

More specifically, this study provided answers to the following questions:

1. How do teachers' actual perceptions compare with their ideal perceptions of each of seven organizational variables that characterize their Schools of HPER?

2. How do teachers' actual perceptions compare with their ideal perceptions for each of seven organizational variables that characterize their Departments of HPER?

3. How do teachers' actual perceptions of their Schools compare with the actual perceptions of teachers in Departments for each of seven organizational variables?

4. How do teachers' ideal perceptions of their Schools compare with the ideal perceptions of teachers in Departments for each of seven organizational variables?

5. How do the actual perceptions compare with the ideal perceptions of teachers grouped by academic rank for each of seven organizational variables that characterize their Schools of HPER?

6. How do the actual perceptions compare with the ideal perceptions of teachers grouped by academic rank for each of seven organizational variables that characterize their Departments of HPER?

7. How do teachers' actual perceptions in Schools compare with teachers' actual perceptions in Departments when grouped by academic rank for each of seven organizational variables?

8. How do teachers' ideal perceptions in Schools compare with teachers' ideal perceptions in Departments when grouped by academic rank for each of seven organizational variables?

Definition of Terms

The following terms are defined as they are used in this study.

Teacher: a full-time staff member of a School or Department of HPER whose main function consists of teaching.

School of HPER: an organizational structure offering a program in physical education and other programs such as health, dance or recreation. It is an autonomous structure having a dean as the highest official. The School provides undergraduate and graduate programs. The term "School" will include Colleges of HPER and will exclude Divisions of HPER.

Department of HPER: an organizational structure offering a program in physical education and other programs such as health, dance and recreation. The Department is a part of a broader structure such as a School of Education, a College of Arts and Sciences, a School of Fine Arts, or a School of Business and Professional Studies. It provides undergraduate and graduate programs. The term "Department of HPER" is exclusive of School of HPER. This term does not include those institutions that provide separate departments for men and women. Only departments from institutions with a total undergraduate and graduate enrollment of 10,000 or more students are used in this study.

Administrators: This term refers to those persons who have full or part-time administrative responsibilities. These persons may serve in administrative roles such as committee chairpersons, coordinators, or the like.

Organization: "A group of people functioning through the concerted efforts of its membership" (Soucie, 1975, p. 12). In this study the organizations under investigation are randomly chosen Schools and Departments of HPER from the midwest and southern districts of the U.S. These two structures are concerned with both undergraduate and graduate education.

Organizational Profile: The profile of an organization is a summary description of an organization's characteristics. The profile consists of the following characteristics: (a) leadership processes, (b) motivational forces, (c) the communication process, (d) the interaction process, (e) the decision-making process, (f) goal setting, and (g) control processes. The purpose of this profile is to reflect organizational climate.

Organizational Climate: This term is used interchangeably with organizational profile. It is:

. . . a relatively enduring quality of the internal environment of the organization that (a) is experienced by its members, (b) influences their behavior, and (c) can be described in terms of the values of a particular set of variables (or attitudes) of the organization. (Tagiuri & Litwin, 1968, p. 27)

Management System: A pattern of practices, behaviors, and beliefs internally consistent with the leadership and managerial processes used in an organization. It is distinguishable from other such systems by the amount of control and the character of the motivational forces used to control and coordinate the activity of people operating under the system. For this study, Likert's model of four characteristically different systems of organizational management will be used.

1. System 1 - This system is labeled "exploitative authoritative."

A summary definition is as follows:

It conceives of the manager's job as consisting of decision, direction, and surveillance, relies primarily upon coercion as a motivating force, and makes little or no provision for the effects of human emotion and interdependence. As a result, communication in this system is sluggish, largely downward in direction, and frequently distorted. Goals are established and decisions made by top management only, based upon fragmentary, often inaccurate information. This produces disparity between the desires and interests of the members and the goals of the organization. For these reasons only high levels of the organization feel any real responsibility for the attainment of the established objectives. Their reliance upon coercion as a

motivating force leads to an almost total absence of cooperative teamwork and mutual influence and to a quite low true ability of superiors to exercise control in the work situation. Dissatisfaction is prevalent . . . performance is usually mediocre (Marrow, Bowers, & Seashore, 1967, p. 216)

2. System 2 - This system is labeled "benevolent authoritative."

A summary definition is as follows:

. . . to decision, direction, and surveillance it adds a fourth managerial duty: expurgating the annoying affect of subordinate members. This fact permits some small amount of upward and lateral communication, although most is downward, and sizable distortion usually exists. Policies are established and basic decisions made by upper management, sometimes with opportunities for comment from subordinate supervisory levels. Some minor implementation decisions may be made at lower levels, but only within the carefully prescribed limits set by the top echelon Very little cooperative teamwork exists Attitudes toward superiors are subservient, and hostility is prevalent toward peers, but the absence of open contempt toward subordinates makes dissatisfaction less intense. Performance may be fair to good (Marrow, Bowers, & Seashore, 1967, p. 216)

3. System 3 - This system is labeled "consultative." A summary definition is as follows:

It still reserves to the manager the tasks of decision, and direction, but removes surveillance as a major function. Little recourse to coercion occurs. In their places recognition of the frequently disruptive effects of human emotion is expanded to include employee involvement through consultation. This practice encourages a moderate amount of valid upward communication, although lateral communication is limited by the prevalence of man-to-man, rather than group, decision-making. Communication is, therefore, usually accurate and only occasionally distorted. In line with this, broad policy decisions are made at the top, but specific objectives to implement these policies are entrusted to lower managers for consultative decision-making. For all these reasons, a substantial proportion of the members of the organization feel responsible for attaining established objectives, and the system makes use of most positive motivational forces, except those which would otherwise arise from group processes. Some dissatisfaction may exist, but normally satisfaction is moderately high, with only some degree of hostility expressed toward peers, some condescension toward subordinates. Performance is ordinarily good (Marrow, Bowers, & Seashore, 1967, p. 217)

4. System 4 - This system is labeled "participative group." It represents the ideal pattern or profile and produces greater employee satisfaction, more favorable attitudes, and more effective organizational performance.

In this system, decisions are made throughout the organization and are linked together by the existence of overlapping groups which do the decision making. Goals are established by group participation, except in emergencies, and for this reason are fully accepted, both overtly and covertly. Information flows freely upward, downward, and laterally, and there exists practically no forces to distort or filter that information. System 4 taps all of the major positive motives, including those motivational forces which arise from group processes. No use is made of fear or coercion, and as a result, attitudes are quite favorable. The interpersonal climate is one of trust. The formal and informal organizations are identical. For these reasons, there exists no subrosa organization working contrary to the organization's purposes. (Bowers, 1976, p. 106)

Causal Variables: These include managerial behavior, organizational structure, and subordinate-peer behavior. They are:

. . . independent variables that can be altered by an organization and its management and that, in turn, determine the course of developments within the organization and the results achieved by that organization. (Likert, 1976, p. 46)

Intervening Variables: These variables consist of the seven organizational characteristics from the POC.

The intervening variables reflect the internal state, health, and performance capabilities of the organization, e.g., the loyalties, attitudes, motivations, performance goals, and perceptions of all members and their collective capacity for effective action, interaction, communication, and decision-making. (Likert, 1976, p. 46)

End-result Variables: These are the dependent variables. They represent the achievements of the organization, its health status, and the satisfaction level of its members (Likert, 1976).

Scope of the Study

This study was limited in the following manner.

1. The population was limited to teachers within the two structures of Schools and Departments of HPER. Samples from these two structures were randomly chosen from the midwest and southern districts of the United States.
2. Subjects represented six Schools and seven Departments of HPER.
3. The sample of teachers included only those teachers who had been employed for at least two or more years on a full-time basis by their respective institutions.
4. Only Schools and Departments of HPER were used which had deans or directors serving as the highest official of their respective organization for at least three years.
5. Data were collected during 1979.

Assumptions of the Study

1. Organizational characteristics of schools and departments can be identified by teachers.
2. The seven organizational variables of the POC adequately represented the organizational characteristics of a School or a Department of HPER.
3. The items used to evaluate each organizational variable adequately represented that variable.
4. The POC yielded a graphic profile presenting the organizational management systems of Schools and Departments of HPER.
5. The subjects used in this study met the specified criteria.

CHAPTER II

REVIEW OF LITERATURE

Literature about the administration of organizations is extensive. For the purpose of this study, the review of literature was limited to various dimensions of organizational and administrative theory and to the interpretation of these in regard to physical education faculty. An examination of this literature involved the following four areas: (a) the development of organizational and administrative theories, (b) administrative theory and research in education, (c) administrative principles and research in physical education, and (d) research on Likert's theory.

The Development of Organizational and Administrative Theories

Organizational and administrative theories were first developed in the early 1900's by industrialists. Interest in theory was limited prior to that time. Industrialists developed traditional and bureaucratic theories for the primary purpose of increasing production often at the expense of the welfare of workers. Philosophers and social scientists became concerned about the ill treatment of workers and exerted influence on industrial management to improve this situation. The changes in management practices that resulted were influenced by the human relations movement. Educators also used administrative knowledge provided by industrialists and social scientists in their administrative practices. Educators adopted and developed administrative theories applicable to

the educational setting as their knowledge and experience increased. These efforts led to the development of general organizational theories in education. A review of literature concerning organizational and administrative theory indicated how industrial theory has influenced education administration theory. Therefore, this review included four categories of theories: (a) traditional theories, (b) bureaucratic theory, (c) human relations theory, and (d) general organizational theories.

Traditional Theories

The development of organizational theory began with research theorists Fayol, Gulick, and Taylor. Each of these theorists made contributions of knowledge about organizations. Among the first contributors was Fayol (1949), the French industrialist. He developed general principles which applied to the total structure of the industrial organization. For example, Fayol introduced the principle of division of labor. This principle established hierarchical levels within the organization and gave supervisors dominant and unquestioned authority over subordinates. Fayol's intention was to increase the quality and quantity of work. Fayol (1949) also examined the function of administration. He described administration as consisting of five elements: (a) planning, (b) organizing, (c) commanding, (d) coordinating, and (e) controlling. His ideas about organizational development reflected his concern for increased efficiency and industrial output.

Gulick (1937, 1948) refined Fayol's ideas on administrative functions. In his book, Administrative Reflections on World War II, Gulick (1948) made his famous suggestions of how the Office of the President of the

United States should be organized. He coined the term, POSDCoRB. These letters represented the following activities and were similar to the elements described by Fayol (1949): (a) planning, (b) organizing, (c) staffing, (d) directing, (e) coordinating, (f) reporting, and (g) budgeting. The principles of POSDCoRB were helpful to persons responsible for organizing executive positions. In addition to POSDCoRB, Gulick made other major contributions. He stressed the following: (a) decentralization of governmental departments into regional offices, (b) grass-roots cooperation among departments, and (c) vertical-horizontal networks linking departments. Gulick (1948) favored an organization that was not overloaded with top administrators. His contributions, therefore, influenced the overall development of organizations.

A shift of interest to operational levels throughout the organization rather than at administrative levels alone was influenced by Taylor's work (1947). As early as 1911, Taylor published a paper entitled "Principles of Scientific Management." In this paper, Taylor introduced a new management technique for increased production and efficiency. This technique involved two elements. The first element of scientific management promoted the use of experimental discovery in industry. Primary areas for experimentation included: (a) the best way of performing a job, (b) the proper time for carrying out every operation of the job, and (c) the best way of performing every part of that operation. Taylor's experimental approach also attempted to determine the best machines, tools, and materials that could be used, and the best work flow for task achievement.

The second element of the scientific management theory supported by Taylor involved the division of work between management and workers. Taylor (1947) insisted that throughout the organization it was necessary to unify the interest of the manager and the worker. He contended that unified interests were necessary for increased productivity. In view of Taylor's (1947) belief in manager-worker unification, he assigned to managers the responsibility of discovering the best way of performing duties, of planning operations, and of providing workers with proper facilities and equipment on their jobs. Managers, however, made little use of these ideas because their opportunism and concern for profits limited their use of Taylor's principles to those that aided them in achieving immediate goals. The most widely used of Taylor's principles were those on the conservation of human and material energies.

Bureaucratic Theory

Taylor's emphasis on conservation, Gulick's concern for structural change, and Fayol's principles for administration at the highest level were examples of the early approaches to administrative theory. While these theorists made contributions to the area of administrative theory, the theorist who had the greatest impact on theory development was Max Weber (1947), a German industrialist whose work focused on the social structure of administrative systems.

Weber's theory of bureaucracy was developed in Germany in the early 1900's. Since that time this theory has had profound effects on administrative thought. Many aspects of Weber's theory have been widely used in the U.S. Blau and Scott (1962) emphasized the popularity of this theory

by stating that "almost all modern administrative organizations are bureaucratically organized" (p. 32).

The wide acceptance of Weber's organizing theory may be attributed to its usefulness in maximizing rational decision making and administrative efficiency. Some of his principles included:

1. The organization is developed on a hierarchy where each lower office is under the supervision and control of a higher one. Each official has authority over his subordinates and is responsible for their actions.
2. Rules are formally developed to govern the actions and decisions of officials. The use of rules along with an authority structure help in coordinating the organizational work. Subordinates are to obey rules and impersonal orders from superiors.
3. The administrative staff are remunerated by fixed salaries and are completely separated from any ownership in the organization.
4. Individual officials are employed as life-long career members of the organization. They are promoted according to achievement and seniority. (Weber, 1947, p. 337)

According to Weber (1947), the bureaucratic form of management was "capable of attaining the highest degree of efficiency and was in this sense formally the most rational known means of carrying out imperative control over human beings (p. 337)."

Weber's principles provided an ideal framework for organizational management and because of this ideal orientation it was not subject to research investigation. Blau and Scott (1962) critically analyzed Weber's theory by pointing out that Weber's work only emphasized the formal organization. They contended that Weber ignored the informal relations and unofficial interaction patterns that developed from the formal

organization. Blau and Scott (1962) contended that Weber's theory intended to dehumanize members of the organization in an effort to implement his ideal bureaucratic model.

Human Relations Theory

Philosophers and social scientists opposed Weber's dehumanizing management techniques. Their concerns were associated with poor working conditions and the lack of human regard for workers. The human relations movement attempted to improve these conditions by recognizing human worth. Among the earliest proponents of the human relations movement was Follett (1942). She opposed the harsh and impersonal management imposed upon workers. Her background in guidance influenced her development of a philosophy of management based on psychological principles. Follett's philosophy emphasized the development and maintenance of harmonious, human relations in organizations. Follett's management ideas were supported by the human behavior studies conducted by Roethlisberger and Dickson (1939).

Researchers Roethlisberger and Dickson (1939) conducted studies involving human behavior at the Hawthorne Division of the Western Electric Company. The results of their studies revealed the dehumanizing effects labor conditions had on employees. These results were widely publicized and they encouraged the use of human relation techniques in industrial management. Because of the Hawthorne studies, industrial firms began changing their previous management approaches. These new approaches encouraged managers to shift to a supportive, humanistic type of supervision. As a result, managers did show more human concern for the worker, yet basic working conditions remained much the same.

McGregor (1960) was another advocate of the human relations movement. He contributed his theories X and Y to management literature. These theories denoted two sets of assumptions supervisors had about workers. Theory X assumed that people disliked work and preferred to be directed and controlled. Theory Y, however, took a more developmental approach in assuming that people had integrity and would seek and accept responsibility (Sergiovanni, 1975). These theories distinguished between human relation and human resource approaches to the supervision of workers. McGregor (1966) stressed the inadequacies of the traditional management views of control. The combined efforts of Follett, Rothlisberger, Dickson, and McGregor brought attention to human relations theory. This theory was radically differing from Weber's bureaucratic theory in its attempt to elevate human worth. The effects of the human relations movement, however, failed to change the nature of working conditions. Only superficial effects on organizational management were achieved as a result of the human relations movement. This movement, however, did increase concern toward developing future behavioral theories.

General Organizational Theories

In 1938, a theory that developed from the influences of the bureaucratic and human relations theories was proposed by Barnard (1968). In his work, The Function of the Executive, Barnard (1968) expressed the need for a social science approach to administrative theory. Barnard, an experienced industrialist, was concerned with the relationship of an organization to its environment. He was also interested in psychological

and social factors affecting organizations. His theory of cooperative systems recognized the importance of developing cooperative behavior in organizations. Barnard felt that people must contribute efforts if a cooperative system was to succeed. He, therefore, emphasized to management the importance of the development of self-respect among workers. He supported this concept for two reasons: (a) so that workers might view their work as important, and (b) so that workers might use initiative in developing cooperative behavior. Barnard (1968) believed that organization efficiency resulted from gaining personal contributions from workers in cooperative decision-making efforts.

Barnard (1968) was best known for his insight into the informal organization. He observed that workers interacted, communicated, and shared friendships in informal groups. He further noted that these informal groups were influential in establishing attitudes and customs. The members of these groups shared common purposes and individuals in the groups were willing to cooperate with each other. Barnard (1968) reasoned that the dynamic process occurring among workers in informal groups was related to the formal organization. This reasoning led him to construct his controversial definition of authority. Barnard's definition stated that subordinates must decide the authority of superior directives. Authority, therefore, could only be achieved through the compliance of subordinates. This emphasis on subordinate behavior brought a new focus to internal organizational relations. In the past, management was only superficially concerned about human involvement of

workers in the organization. Yet, Barnard's ideas stressed informal interaction and cooperation of workers as a major consideration in developing the formal organization.

Barnard (1968) recognized the importance of cooperative decision making. He and Simon shared an interest in this area. Simon (1976), however, was the first to view the organization as a decision-making structure in his book, Administrative Behavior: A Study of Decision Making Processes in Administrative Organization. He felt the administrative process depended on decisional processes. For example, he contended that effective administration demanded rational decision making based on facts rather than on value premises. He also believed that the purpose of vertical heirarchy of authority was to distinguish decision-making functions among the specialized members of the hierarchy. Simon's (1976) focus on decision making added knowledge to the understanding of organizational behavior.

A joint contribution from Barnard and Simon (March & Simon, 1958) was their theory of organizational equilibrium. This theory discussed the balance between the amount of contributions made by group participants and the amount of inducement offered to these participants by the organization. Barnard and Simon's theory also identified motivational factors which could be provided by the organization to encourage members to continue their participation for organizational efficiency (March & Simon, 1958). Barnard and Simon recognized the interrelated social behaviors of workers and the importance of these behaviors to organizational efficiency.

Parsons (1965) developed another concept of formal organization. His general theory of social systems was based on principles which could be applied to varied situations. According to Parsons (1965), all social systems were faced with four basic problems: (a) adaptation to environmental demands, (b) goal achievement, (c) integration of member units of the system, and (d) maintenance of the system's motivational and cultural patterns. In addition, Parsons (1965) separated the formal organization into three hierarchical levels. These levels included: (a) the technical level of dispensing the product, (b) the managerial level that coordinated organizational efforts, and (c) the institutional level that connected the organization with other social systems. It seems that the technical level was concerned with problems of adaptation and goal achievement, the managerial level dealt with integrative problems, and the institutional level dealt with the system's motivational and cultural patterns (Blau & Scott, 1962). Parsons (1965) contended that each of these three levels was separate from the others. This separation of levels occurred in the hierarchy of authority as well as in the area of responsibility. Barnard, Simon, and Parsons related social interaction and decision making to the organization although Parsons' concepts were more general than those of Barnard and Simon.

Other researchers attempted to link behavior with organizational variables in developing general organizational theory. Some studies were directed toward understanding the relationship of subordinate behavior and leadership style as these factors related to the decision-making process. According to Porter, Lawler, and Hackman (1975) recent studies

suggested that employee behavior influenced leader styles rather than the reverse. However, Vroom and Yetton (1973) viewed the leader as being in command of the decision making process. They developed a normative model for determining the amount of subordinate participation sought by leaders in making specific decisions. Based on this model, a leader chose the degree of subordinate involvement in decision making on a continuum from "no involvement" by subordinates to "group participative decision making." Vroom and Yetton (1973) felt that the degree of subordinate involvement was determined by three factors: (a) the quality of the decision, (b) acceptance by the group, and (c) the time allotted for decision making. This behavioral approach supported participative decision making when it was appropriate to a situation.

The area of leader behavior was important to the study of organizational theory. The discovery of the importance of leader behavior in regard to the function of organizations increased interest in the development of organizational behavioral theory. One researcher involved in the Ohio State Leader Behavior Studies was Halpin (1966). He conducted research in leadership styles and used the Leader Behavior Description Questionnaire (LBDQ) as his tool for data collection. Halpin's (1966) research stimulated interest in leadership styles and their effect on organizational climate. He proposed that the leadership style used by the leader should be compatible with the group's acceptance of that style.

Another area of Halpin's interest in the administrative research field was that of organizational climate. In order to obtain information about organizational climate, however, it was necessary to develop a tool

to collect objective data. Therefore, Halpin and Croft (Halpin, 1966) constructed the Organizational Climate Description Questionnaire (OCDQ). This tool attempted to study the characteristics of groups within an organization and to determine how these groups responded to different leader behaviors. Halpin's (1966) research focused on social interactions between the leader and group members. It also was important in providing knowledge about employee behavior. Halpin's work at the Ohio State University was important in linking leadership style with organizational behavior.

The University of Michigan's Institute of Social Research like the Ohio State University promoted research in leadership and organizational behavior. One of the outstanding researchers at The Institute of Social Research was Likert (1961, 1967). He made major contributions to the study of organizations. Likert, however, was concerned with the broad study of organizational management rather than on a limited focus of leadership styles. He developed the Profile of Organizational Characteristics (POC) as a tool to describe management patterns of organizations. The POC tested Likert's (1967) interaction-influence network theory. This tool was developed to examine organizational climate and was similar to Halpin and Croft's Organizational Climate Description Questionnaire (OCDQ) according to Hall (1969). The present study also used Likert's interaction-influence theory as the basis for its research. A form of the POC served as the data gathering device. A detailed discussion of Likert's theory and instrument will be discussed later in this chapter.

Numerous research studies were conducted to investigate organizational theories or to explore new avenues of theory building. Argyris (1959), like Likert, was a researcher concerned with the integration of the individual with the organization. He proposed to achieve this integration through decentralization of authority. His research (1962) illustrated that decentralization of authority increased organization effectiveness in industry. Argyris (1964) felt that for decentralization to succeed, superior-subordinate relations must be open and trusting. Simon (1976) supported Argyris by stating that decentralization could result only from delegating authority and responsibility to the lowest organizational level. Argyris (1962,1964) added that individuals with professional and technical competence must be at all hierarchical levels for decentralization to succeed. He felt that an organization should offer challenges and opportunities to its members. Argyris (1959) sought to achieve his goals of organizational integration by using extensive training programs. These programs included T-group methods and laboratory education. These experiences were designed to increase the competency of individuals for working together in groups. Argyris' (1959) work in the development of such programs provided individuals with skills for working in groups and for coping with organization stress.

Researchers other than Likert and Argyris have studied participation and group interaction. Several studies were conducted on managerial behavior and its relationship to member satisfaction. Bowers (1975) and Thompson (1971) researched work groups. Their research showed that supportive leadership which facilitates interaction was related to member satisfaction

and improved group process. Wofford (1971) studied the morale of employees. He found that morale was higher when managers used a teamwork approach for considering employee ideas, even when this approach was not required or easy to use. According to Wofford (1971), this teamwork approach encouraged security and maintenance needs as well as personal interaction among workers. These studies by Bowers (1975), Thompson (1971), and Wofford (1971) indicated the need for interaction among employees.

Further research on superior-subordinate relations was conducted by Bass (1976). He found that subordinates were about equally satisfied to participate or to consult with superiors on complex tasks. According to Bass (1976) subordinates liked being delegated decision-making tasks. Ritchie and Miles(1970) studied one organization committed to the participative decision making process. They studied the degree to which managers were satisfied with their immediate superiors. Results characterized the most satisfied managers as those having the trust and confidence of their superiors. These satisfied managers also shared in high levels of participation. In view of these studies, Zand's (1972) findings which indicated that trust positively related to effective group problem solving were not surprising. From this research, it appeared that both lower and upper level employees desire self-satisfaction and motivation from their work.

Currently, studies have confirmed the general findings that organizational size is inversely and negatively related to member participation (Wilken, 1971; Talacchi, 1960; Indik, 1965). Indik (1965) believed that negative effects of large-sized organizations were avoidable. He

felt administrators should develop processes for maintaining high levels of internal communication. Through internal communication, members could increase their interpersonal relations and also their motivation to participate in organizational decision making.

Participative management has been researched in different cultures. Middle managers in the U.S. were studied by Bass and Rosenstein (1978). These researchers found consultation to be the general style used between middle managers and subordinates. These findings may indicate the progressive change of management practices over the last 50 years. Cascio (1974) studied managers from 21 countries whereas Bass and Rosenstein (1978) confined their research to the U.S. Cascio (1974) found some use of the American participative style in other countries although it was not widespread. His research showed Dutch-Flemish, Northern European, and Anglo-American managers preferred use of participative groups. The Latin, Japanese, and Italian managers, however, preferred uninvolved, passive subordinates. Cascio (1974) suggested that the more traditional societies may use less rigid management patterns due to contact with democratic, permissive countries.

The studies on organizational behavior indicated an increased desire for subordinate participation in decision making. Weissenberg (1971) found that employees wanted a part in making decisions that affected their jobs. Yet, Gouran (1974) and Taylor (1965) felt that employees needed to develop skills necessary for making wise decisions. Maier (1963, 1965) specifically supported the development of group problem solving skills

and leadership skills for all organization members. These concerns were supported by Mulder (1971) who indicated that participation by individuals in decision making was a vital organizational problem. Through participation, organizational control was shared (Tannenbaum, 1962, 1968), and power equalization resulted (Strauss, 1963). Barnlund's research (1959) showed that group decisions were superior to those made by individuals alone or by majority rule. Therefore, the impact of participative management for utilizing human potential may be enormous for organizations.

Summary

The earliest administrative theories were concerned with industrial efficiency. These theories stressed direct control of employees for the maximum organizational productivity. Research was generally limited to seeking ways to increase productivity.

The research of social scientists had great impact on organizational management. Their results indicated the need for a shift from controlled supervision to humanistic methods of supervision. These scientists were concerned with individual and organizational needs. Industrialists, however, were more interested in profits than in understanding management principles.

Researchers sought to relate leader behavior to work situations and group behavior. The results of these early attempts were often contradictory, unwelcomed, or not clearly defined.

The interest in organizational research increased as industry became an important part of society. Theories of Barnard, Simon, and Parsons

viewed the organization as a social system. These theorists were among the first to propose ways of studying employee responses and interactions.

Behavioral scientists saw a usefulness in organizational research. The satisfaction, motivation, and productivity of employees were of interest to them. Research in these areas led to the recognition of important informal networks within the formal organization. Research of behavioral scientists brought about an awareness of the importance of organizational climate and its influence on its members.

Currently, participative decision making has been studied in relation to its effects on member and organizational productivity. Studies have generally cited the value of group participation on member satisfaction and self-esteem. Yet, it has been difficult to correlate group participation with productivity.

Administrative Theory and Research in Education

The field of education has drawn heavily from administrative knowledge provided by the areas of business and industry. The traditional approach of administration which focused on practical administrative matters was used in education prior to 1946 (Griffiths, 1959). Educators were receptive to this practical focus because they were of the opinion that theory was suited to academic analysis and research. Theory which did not offer immediate practical application seemed irrelevant and confusing for the working educational administrator (Getzels, Lipham & Campbell, 1968). The practical methods suggested by administrators were so general in nature that they lacked operational usefulness. There were some insightful educators, however, who realized the need for valid observation.

They encouraged the collection of data and the interpretation of facts obtained from the data for use in solving administrative problems. The work of these educators promoted a keen interest for developing administrative theory in education.

According to Griffiths (1959) and Halpin (1966), the thrust of interest in educational administrative theory was marked by three events. The first event was the formation of the National Conference of Professors of Educational Administration (NCPEA) in 1947. This conference brought together professors who trained administrators for the purpose of communicating and testing ideas. Second, the Cooperative Program in Educational Administration (CPEA) was developed. The Kellogg Foundation funded the CPEA. This funding was based upon a concern for improvement in public school administration. The purpose of the CPEA was to research and to improve the field of educational administration. The third influential event in the development of educational theory was the founding in 1956 of the University Council for Educational Administration (UCEA). The UCEA stressed educational research and more effective academic preparation for school administrators. These three events stimulated new interests and insights for developing hypotheses to be tested. Through theory testing, research based on data provided objective conclusions to be drawn about educational administration (Griffiths, 1959).

Progress was slow in educational theory development. From meetings of the National Conference of Professors of Educational Administration and the Cooperative Program in Educational Administration, however, came five influential books. These books were published within a five-year

period. Their content exemplified the immediate concerns of educators for the development of administrative theory. These books included:

- (a) The Use of Theory in Education by Coladarci and Getzels (1955),
- (b) Studies in School Administration: A Report on the CPEA by Moore (1957),
- (c) Administrative Behavior in Education edited by Campbell and Gregg (1957),
- (d) Administrative Theory in Education by Halpin (1958), and (e) Administrative Theory by Griffiths (1959). These authors were among the earliest to promote research and theory in educational administration.

Leaders in the field of education felt the development of a theoretical approach to administration was an important step for educators. Getzels et al. (1968) noted three important functions of theory in the study and practice of administration. First, they pointed out that theory provided a framework for collecting data. Theory also enabled the investigator to select elements in a phenomena. It gave the researcher an opportunity to place differing weights of importance on the variables to be studied. The researcher could then ascribe values to the various selected elements (Guba & Getzels, 1955). Explicit grounds could be used to describe the investigator's research design. In this way, a theory was made taxonomic. Second, theory made administrative research dynamic. It explained relationships among events and led to further testable hypotheses. These tested hypotheses explored and clarified the usefulness of the theory. Third, theory provided a framework for interpreting data (Guba & Getzels, 1955). It was heuristic in recognizing new and significant issues that called for further research. Getzels et al. (1968) believed that to identify and define the underlying problems:

of an issue rather than merely treating the symptoms of each problem was the most important function of theory for the administrator. They contended that theory provides hypothesis testing in daily practice and in research activities. The theoretical approach was a significant advancement over the previous trial and error methods of administration.

Halpin (1966) used research to answer administrative questions and to develop theory in education as he had previously done in business settings. He constructed a paradigm for the purpose of developing hypotheses regarding administrative behavior. According to Halpin (1966), these hypotheses, once tested, might lead to useful administrative theory. His research paradigm included four divisions: (a) the organization's task, (b) administrator behavior, (c) variables associated with administrator behavior, and (d) the criteria of administrator effectiveness in relation to organizational maintenance and achievement. Halpin (1966) designed this paradigm to generate research hypotheses with primary emphasis on administrator behavior and its relationship to organizational achievement.

Halpin studied the cause and effect relationships between administrator behavior and organizational achievement. Two other researchers, Getzels and Guba (1957) supported an approach different from Halpin's for studying administrative processes. These educators developed a socio-psychological theory of social behavior and applied this theory to major issues in education. They viewed institutions as social systems containing two classes: (a) the normative class consisted of the role expectation for workers as defined by the purpose of the institution, and (b) the idiographic

class consisted of the need-dispositions of individuals. These two classes, normative and idiographic, must be fulfilled by the administrative process in order for institutional goals to be achieved according to Getzels and Guba (1957). They believed that the satisfaction of organizational members was contingent on the congruence of institutional expectations with individual need-dispositions. While Simon and Barnard (Marsh & Simon, 1958) had earlier developed an organizational-equilibrium theory, Getzels and Guba (1957) went beyond this theory in their construction of the socio-psychological theory. Getzels' and Guba's theory (1957) suggested ways of achieving satisfaction and improving morale among organizational members. Research on the socio-psychological theory was provided in Getzels, Lipham, and Campbell's book (1968), Educational Administration as a Social Process.

The development of administrative theory was slow in affecting administrative practices in educational institutions. Historically, educational institutions used bureaucratic principles of organization which had been incorporated by business and industry. In recent decades, however, institutions of higher education have been recognized as being professional organizations which exhibited some bureaucratic characteristics. Examples of these bureaucratic characteristics might include hierarchical administrative structure, the division of labor, and the rewards and sanctions provided by the institution.

Research in Higher Education

Professional organizations such as those in higher education showed several differences from bureaucratic organizations. Power and influence

were shared throughout the professional organization (Perkins, 1973). This prevented hierarchical authority from becoming centralized (Corwin, 1965). Educators within educational institutions viewed the area of specialization as being related to characteristics of people rather than characteristics of tasks (Abbott, 1969). The highly specialized faculty, therefore, assumed power and freedom unique to the academic environment (Epstein, 1974). Each faculty member had predominant control and decision making power in his area of teaching and research. He had this power because of his level of expertise (Platt & Parsons, 1970). Faculty control and decision-making power resulted in organizational decentralization which was based upon faculty influence and shared authority (Ross, 1977a; 1977b). These shared conditions of power and freedom differed dramatically from the bureaucratic structure of command and authority.

Colleges and universities have been under increasing pressures to share authority and decision making in their governance (Mortimer & McConnell, 1970). This contention was supported by the American Association of Higher Education as an outgrowth of their 1971 study. As a result, members of the Association recommended campus governance and management be more widely shared by students, staff, and faculty (Keeton, 1971). Millett (1962) agreed that colleges and universities must be organized around the power of academic community rather than on hierarchical power. He further contended that tension may result from shared power between faculty and administration, but this tension seemed normal in the educational organization (Mortimer & McConnell, 1970). Rourke and Brooks (1966) argued however, that the issue of faculty participation in university governance has caused a "management revolution."

Current research on faculty participation in decision making has conflicted. Langlois (1973) and Laughlin (1973) reported increased faculty desire for participative management. Dykes (1968) found, however, that faculty desired decision-making power on academic matters but was less interested in the economic and public affairs of their institution. It has also been suggested that the use of participative management was situational. Situational management depended on variables such as organizational size (Blau, 1973) and faculty qualifications (Ross, 1977b).

Faculty seemed most committed to participative decision-making at its departmental level (DeVries & Snyder, 1974). The academic department has been the home of professional expertise (Baldrige, Curtis, Ecker, & Riley, 1977). It has served as a decision-making structure (Roach, 1976; Dressel & Reichard, 1970; Smock & Hake, 1977) and as a social structure (Salanick, Calder, Rowland, Lebiebici & Conway, 1975). The department setting is localized and on this level faculty can promote its teaching and research interests. The department setting also has a specific focus on the academic discipline of faculty members.

Research in Secondary Education

Organizational patterns at the secondary school level reflected characteristics similar to those found in higher education. Studies cited by Alutto and Belasco (1972) and Byrnes (1972) indicated that teachers desired more participation in the decision-making process. Bernhardt's (1971) study found that teachers who expected decision-making opportunities and were denied such opportunities showed militant behavior.

Lall (1975) supported the use of democratic processes in decision making between principals and teachers. Principals have been encouraged to develop and utilize human relations skills with staffs (Griffiths, 1956; Wagstaff, 1969; Harkin, 1968). There are studies that criticize the use of bureaucratic principles in schools (Hansen, 1976), and other studies supportive of their use (Moeller, 1964). Researchers Alutto and Belasco (1972) pointed out that some teachers are "decisionally saturated" and desire fewer decision-making responsibilities. No consistent conclusions can be made from these studies. It appears that education institutions in general find benefit from participative faculty involvement. Difficulties in this decision-making pattern have occurred; yet, the benefits seem to outweigh disadvantages.

Summary

The first administrative principles used in education were adopted from those of business and industry. These first principles seemed to lack usefulness because they were too generalized. Their generalization made them, therefore, inadequate for solving administrative problems. Concerned educators attempted to improve the situation by stressing theory development. They felt theory was essential in the area of administration in order to acquire objective knowledge.

Research models were developed as a result of dissatisfaction with proposed principles. Researchers used these models to examine the relationship of certain variables to organization effectiveness. For example, Getzels and Guba (1957) conducted studies testing their normative-idiographic model for explaining organizational behavior. Halpin (1966)

also proposed a paradigm for developing research hypotheses. His primary focus was on linking administrator behavior with organizational effectiveness. These studies encouraged social science research on individuals' needs and the influence of individuals on the accomplishment of organization goals.

From the development of theoretical models, educational administrators became interested in studying specific variables in administration. These variables included areas such as leader behavior, authority, shared decision making and faculty satisfaction as research interests. Relationships among these variables seemed to emerge from the research literature. Studies indicated: (a) faculty and students desired opportunities for increased participation in institutional governance although they may not utilize that opportunity, (b) administrators perceived their management as more participative than did faculty, and (c) the most influential administrators were those who asked for faculty input, were friendly and supportive, and shared authority with faculty. Literature and research in education have indicated progressive efforts toward decentralization in educational structures and toward the increased sharing of power among faculty members.

Administrative Principles and Research in Physical Education

Theory development in organization and administration has progressed more slowly in physical education than in educational administration. The physical education literature has emphasized the use of administrative principles rather than theory. Among the first guiding principles for formulating a physical education program were those provided by Williams

in 1922. His principles included four fields of work: (a) corrective, (b) educational, (c) hygienic, and (d) recreative work. Since Williams' (1922) ideas were set forth, other physical educators have described organization and administration in physical education in the form of principles rather than theory. Sharman (1937) explained his principles of administration as consisting of: (a) organizing, (b) management, (c) regulation, and (d) control of personnel and materials. He acknowledged the existence of a scientific basis of administration although he did not see that basis used by physical educators. Nash, Moench and Saurborn (1951) suggested that organizational and administrative principles included: (a) principles of hierarchy, (b) line and staff, (c) division of work, and (d) the coordination of work. As late as 1963, physical educators Howard and Masonbrink continued to express the administration of physical education programs in terms of principles. Little effort has been made since that time by physical educators to develop organization or administrative theory as a basis for administrative actions. However, physical educators have borrowed theories from educational administration, business, and industry for their research efforts in gaining knowledge applicable to their profession.

Consistent with physical education literature, physical education studies have tended to focus on the description of administrative practice rather than on the application of research to theory according to Zeigler (1968). Zeigler's point was illustrated through research by Spaeth (1967), Penny (1968), and Paton (1970) under his supervision at the University of Illinois. Their studies contributed knowledge about the state of

administration in physical education up until 1970. Spaeth (1967) analyzed the content of 35 research reports completed between 1940 and 1966. She found that most studies focused on technical aspects and localized administrative problems. According to Spaeth (1967), these studies contributed little knowledge to administrative process and theory. Penny's (1968) study supported Spaeth's concern regarding the lack of theoretical knowledge in physical education administration. Penny's (1968) study found different meanings associated with concepts of administrative theory and research existing between two groups. One group consisted of educational administrators. The second group was composed of physical education administrators as well as graduate faculty teaching courses in the organization and administration of physical education programs. Penny (1968) also discovered that physical educators viewed administrative concepts less scientifically than did professors of educational administration. An area of concern for Paton (1970) was the use of administrative theory in graduate courses in physical education. His research findings indicated that only a few significant sections on administrative theory were included in graduate courses. The studies of Spaeth (1967), Penny (1968), and Paton (1970) increased awareness about the lack of research in administrative theory in physical education. These researchers emphasized theoretical application in research studies, in graduate education, and in the general understanding of administrators.

Research in Leader Behavior

In administrative literature three areas of study seem to have dominated research for the past decade. These areas included leader

behavior, communication, and organizational climate. Leader behavior was studied by Douglas (1969). He investigated the leadership methods used in undergraduate physical education departments in the state of Ohio. This research tested Likert's interaction-influence theory by using a modified version of his Profile of Organizational Characteristics (POC). Results indicated that departments surveyed were administered by chairmen who used a participative governance pattern with faculty. Department chairmen and faculties differed significantly, however, with regard to faculty perception of the administrator's present behavior (real) and the type of behavior they would prefer (ideal). These differences occurred because the faculty had a desire for greater participation in organizational governance than was being allowed by their administrators. Douglas (1969) suggested that the gap between real and ideal administrative behavior should be reduced for the sake of organizational compatibility.

Buckiewicz analyzed group and leader behavior perceptions in her 1974 study. Data were drawn from community college physical education departments in the states of California, Oregon, and Washington. The Leader Behavior Description Questionnaire, revised by Stogdill (1963), was used to compare perceptions of faculty and department chairmen on 12 leader behavior dimensions. Department chairmen thought they were significantly more considerate and were following integrative patterns to a greater degree than did their faculty members according to Buckiewicz (1974). Further findings included the following: (a) male and female faculty members differed significantly in their perceptions of the chairman, (b) leader maturity did not seem to affect faculty perception of leader

behavior, and (c) education courses, size of school, and state origin did not seem to affect faculty perceptions of leader behavior.

A recent leadership study by Kemp (1977) investigated selected physical educators' perceptions of leader behavior of the woman administrator in physical education. A Q sort was administered to subjects. The sort statements represented Stogdill's concept (1963) of leader behavior dimensions. Stogdill's two dimensions were: (a) initiating structure with its subcategories of initiation of structure and production emphasis; and (b) consideration with its subcategories of consideration and tolerance of uncertainty. Kemp (1977) found the woman administrator was described in both leader behavior dimensions. The woman administrator was perceived as relating more to the subcategory of initiation of structure than to the subcategory of production emphasis, and more to the subcategory of tolerance of uncertainty than to consideration. In Kemp's (1977) study, the woman administrator was perceived as being friendly and approachable, yet concerned that group members follow standard rules and regulations. The woman administrator was perceived as being an individual willing to make changes, who was hard driving where there was a job to be done, and who was desirous of maintaining definite standards of performance. Kemp's (1977) study provided insight specific to the leader behavior of women.

The leader behavior studies of Douglas (1969), Buckiewicz (1974), and Kemp (1977) provided the following information about physical education administrators and their leader behaviors: (a) administrators are asked to relinquish more authority and participation to faculty in organizational

governance; (b) women administrators are perceived as having leader behavior in two leader behavior dimensions: a. initiating structure, and b. consideration; and (c) chairpersons generally perceive themselves as being more considerate and consistent in dealing with faculty than they are perceived by faculty. Findings from two of the three studies (Douglas, 1969; Buckiewicz, 1974) may support the need for improved communication between administrators and faculty for organizational effectiveness.

Research on Communication Patterns

Communication patterns in physical education units have been studied by Case (1969) and Steele (1971). Neither researcher appeared to use a theoretical base for his study. Case (1969) investigated the prevailing communication patterns within the College of Physical Education at the University of Illinois. He concluded the following: (a) individuals in authority positions, almost without exception, were the key communicators in their structure, (b) each of the four departments and two divisions under study displayed a greater number of constant communication bonds within their respective units than between units, and (c) the formal organization was supplemented by a well-developed informal structure which added vitality to the organization. Case (1969) concluded that greater efficiency and effectiveness in the communication structure could be attained if unit leaders provided an atmosphere conducive to social interaction.

Research similar to Case's (1969) was conducted by Steele (1971) in a school of health, physical education and recreation. Both Case (1969)

and Steele (1971) concerned themselves with the communication factor. Steele's results were different from those of Case (1969). Steele found: (a) women faculty received a greater percentage of communication originating from the school's dean than did men faculty, (b) talking and listening to another person in his presence was the fastest means of communication, (c) communication was greater between interest areas than within, and (d) communication originating at the top of the school structure was received by more people than communication originating at the bottom. A comparison of these communication studies by Case (1969) and Steele (1971) indicated that communication patterns varied. For example, Steele's results found that communication bonds were sex related and were greater between interest areas than within those areas. However, Case (1969) noted the importance of the informal organization. In addition, he noted that communication was greater within physical education units than between physical education and other allied units. These variations in communication patterns appeared to relate to faculty differences and to the internal structure of the organizations studied. These two studies indicated that planned efforts to improve communication patterns among faculty were needed for organizational efficiency.

Another study related to communication research was conducted by Davis (1972). He felt a crucial factor in effective administration related to how the chairman's responsibilities were regarded by department faculty. Priorities given by the faculty and chairman to administrative responsibilities were also of concern to Davis (1972). He investigated these concerns in a study of nine colleges and universities in the states

of Iowa, Wisconsin, and Minnesota. This study investigated role perceptions and expectations of the physical education department chairman's actual and ideal responsibility priorities. These priorities were ranked by department members and by the respective chairmen. A theoretical model was established for determining the relationships of the following dimensions: (a) role communication, (b) expectation communication, (c) role perception communication, (d) sensitivity for the ideal responsibilities, (e) sensitivity for the actual responsibilities, (f) faculty satisfaction, (g) chairman satisfaction, and (h) philosophical agreement. Results of this study indicated no general patterns of consolidation between any of the eight dimensions for the departments tested. Davis (1972) explained that no one responsibility was ranked as low or high priority by the chairmen or by faculty members. The three levels of communication (a, b, & c above) were generally poor for all departments. Davis (1972) gave no explanation for his results. His lack of explanation could relate to the fact that chairman responsibilities were not clearly perceived by faculty or chairmen or that Davis' model was not adequate for measuring his hypothesis.

Research on Organizational Climate

Other studies on organizational climate have included the communication variable along with other variables. Variables such as decision making, control, and goal setting have been combined to describe the general climate of an organization. Research on organizational climate has been limited in physical education. Only two such studies were found by this investigator. These studies were those of Dannehl (1970) and Soucie (1975).

Dannehl (1970) applied Halpin's Organizational Climate Description Questionnaire (OCDQ) to determine perceptions of organizational climate by both leader and group members. Subjects were drawn from four different administrative structures in selected mid-western universities. The administrative structures were described in the following way: (a) Structure 1 units consisted of departments of physical education within colleges of education, (b) Structure 2 units consisted of departments of physical education within the colleges of fine arts, (c) Structure 3 units were schools or divisions of physical education where the highest office was director, and (d) Structure 4 units were colleges of physical education where the highest administrative position was dean. Dannehl (1970) found significant differences between Structures 1 and 2 as compared to Structures 3 and 4 in overall organizational climate. Structures 1 and 2 indicated a less favorable climate while Structures 3 and 4 clustered toward a more favorable climate. Dannehl (1970) concluded that Structures 3 and 4 were more autonomous than Structures 1 and 2. He also found no significant differences in faculty perceptions based on academic rank. The former units were within schools or colleges of physical education and were separate from allied areas of physical education. Yet, Structures 1 and 2 offered health, physical education, and recreation within one department of physical education. Dannehl (1970) felt his results supported more autonomous administrative structures for physical education. It seemed that the task of the organization became unclear when persons from different professional areas were organized into one structure. Further results found chairmen's perceptions of organizational climate significantly

different from the perceptions of the faculty. Chairmen viewed each dimension of their organization's climate to be more functional than did the faculty. Dannehl (1970) concluded that either chairmen were not completely aware of organizational behavior or that they were not willing to describe such behavior.

Soucie's study (1975) involved actual and ideal perceptions of department heads and teachers in regard to determining organizational climate. Soucie (1975) used college physical education departments in Quebec. In his study, Soucie (1970), unlike Dannehl (1975), made no administrative structural differentiation. He used Likert's POC as the tool for data collection. The POC measured eight organizational variables depicting the climate of physical education departments. Results showed teachers' and leaders' actual perceptions differed for two of the eight variables. The differences occurred with those variables of decision making and communication. The two groups, teachers and leaders, generally perceived the present (actual) organization as being consultative. No significant differences were found, however, between teachers' and leaders' ideal perceptions of organizational climate. Both groups showed a preference for participative group involvement. The studies of both Dannehl (1970) and Soucie (1975) indicated that department heads as well as faculty members desired increased participation in management. Their research also indicated that an autonomous organization structure was preferred over a structure consisting of several different units.

Summary

Much of the organization and administration research conducted in the past by physical educators has not been based on theory (Spaeth, 1967). Those theories that have been utilized in physical education research have been borrowed from education or industrial theorists such as Likert, Stogdill, and Halpin. In general, little progress has been made by physical educators in developing organizational and administrative theory specific to physical education. Interest in research has developed, however, in the areas of leader behavior, communication patterns, and organizational climate. These areas seem of special interest for gaining knowledge relative to administrative practices.

Recent physical education research has consistently shown that skills in communication and interaction are important for effective organizational management. Research also indicated that faculty communication networks, their organization's structure, and their perceptions of the organization have contributed to faculty satisfaction with the organization and their willingness to contribute in the organization's decision-making processes. These findings are generally consistent with those in education, business, and industry.

Research on Likert's Theory

A leading theorist in the field of organizational management is Likert. Experiences in business, academic, and government organizations have contributed to the development of his interaction-influence theory. During 1946 to 1971, while at the Institute of Social Research at the University of Michigan, Likert conducted extensive research on his theory.

Books written on his work such as New Patterns of Management (1961), The Human Organization (1966), and New Ways of Managing Conflict (Likert & Likert, 1976), illustrated the development of his theory and its application to numerous organizations (Bowers, 1976).

Research in Business and Industry

In their research, Likert and Bowers (1969) focused on the management systems of business firms. They contended that organizational research in business provided the relevant general theory needed to accelerate the progress of research on serious social issues. They also reasoned that the fundamental variables dealt with in business organizations were essentially the same as those variables existing in societal problems. Examples of these variables included leadership, communication, motivation, interaction, and conflict management. Likert and Bowers (1969) felt that the emergence of more valid and effective organizational theory and improved management systems would result from business research. They proposed that these theories would have widespread impact and application for various areas of administration. For example, these theories could apply to administration of educational, hospital (White, 1971a; 1971b), business, military (Johnsen, 1968), and government institutions.

Likert (1961; 1967) specifically focused his interaction-influence network theory on organizational structure and interaction processes. Likert's theory was derived from his principle of supportive relationships. This principle of supervision states:

The leadership and other processes of the organization must be such as to ensure a maximum probability that in all interactions and all relationships with the organization each member will, in the light of this background, values, and expectations, view the experience as supportive and one which builds and maintains his sense of personal worth and importance. (Likert, 1961, p. 103)

The principle of supportive relationships provided a guide to the development of an interaction-influence network within an organization. This network encouraged the bulk of decision making to be done in small face-to-face work groups. These work groups were formed throughout the organization. Individual groups made decisions concerning their work and also influenced decisions affecting them in other work groups. This coordination of decisions made up an overlapping group pattern in the organization. Likert (1961; 1967) referred to this overlapping pattern as a "linking pins" pattern. He explained that highly effective work groups were linked together into an overall organization by people who hold overlapping group membership. Thus, the superior in one group was a subordinate in the next group, and so on in a continuous linking pattern throughout the organization. Based on the interaction-influence network theory,

. . . the management will make use of the potential capacities of its human resources only when each person in an organization is a member of one or more effectively functioning work groups that have a high degree of group loyalty, effective skills of interaction, and high performance goals. (Likert, 1961, p. 104)

Likert's (1961) initial research sought to determine management differences between high performing and low performing organizations. Likert (1961; 1967) isolated seven variables that his previous research had indicated to be important in describing organizational behavior. These variables included: (a) leadership, (b) communication, (c) motivation, (d) interaction, (e) decision making, (f) goal setting, and (g) control. Likert (1966) felt that organization members could

respond to questions based on these seven variables. These responses could then be used to classify the organization according to one of four systems. These systems included: (a) exploitative authoritative, (b) benevolent authoritative, (c) consultative, and (d) participative groups. The use of seven variables for identifying organizational systems made up Likert's 4 Systems Model. The 4 Systems Model was a working structure for Likert's interaction-influence theory. This theory identified the most productive system as System 4 (participative groups) (Bowers, 1976). Likert and Likert (1976) contended that the System 4 interaction-influence network was more effective than were Systems 1, 2, or 3 networks. System 4 was described as follows:

The human organization of a System 4 firm is made up of interlocking work groups Participation is used . . . to establish organizational objectives which are a satisfactory integration of the needs and desires of all the members of the organization High levels of reciprocal influence are achieved in the organization. (Likert & Likert, 1976, p. 16)

Researchers have tested Likert's theory in a variety of organizational settings. A longitudinal test of this theory was presented by Morrow, Bowers, and Seashore (1967) in their book, Management By Participation. They discussed the successful improvement of a failing business organization through the introduction of System 4 (participative) management principles. This well documented report described how a financially troubled company, the Weldon Plant, radically changed its management system from one of authority-obedience to a participative system over a four-year period. This report described the systematic changes in attitudes, behavior, values, and leadership style of the entire organization. The change program was

intended to alter Weldon's control structure so that greater amounts of control would be exercised by people at lower ranks in the organization. Likert's POC was the instrument used for the periodic testing of his System 4 Model being developed at Weldon Plant.

Bowers and Seashore (1966) gave special insights into the significant changes in the supervisor's role at Weldon which resulted in an altered management system. From the review of several supervisory programs, Bowers and Seashore (1966) found that four dimensions consistently emerged. The dimensions were: (a) support behavior, (b) interaction-facilitation behavior, (c) goal emphasis behavior, and (d) work facilitation behavior. Bowers and Seashore (1966) tested the four dimensions in an effort to relate leadership behavior to organizational effectiveness and found that these four dimensions alone were inadequate in predicting effectiveness. They concluded that intervening variables such as work patterns, personal and motivational variables, and leadership-related variables must be included for predicting organizational effectiveness. These results seemed to support Likert's (1967) 4 System Model which included leadership in addition to several other organizational variables.

Likert and Bowers (1969) stressed the importance of such longitudinal studies as the Weldon project. They viewed longitudinal studies as useful for determining the relationship among management styles, subordinate attitudes, and organizational productivity. Results from the Weldon research provided evidence for the effectiveness of System 4 management.

Patton's (1969) research attempted to link leadership style to organizational climate. Subjects were employees at the Boeing Company Aerospace Group. His study used an instrument similar to Likert's (1967) POC to measure organizational climate. Myer's instrument measured leadership style, extrinsic motivation, and intrinsic motivation. Results of Patton's (1969) study revealed high levels of extrinsic and intrinsic motivation were positively and significantly related. Multiple regression tests also positively related motivation with developmental leadership styles and participative organizational climate. Developmental leadership styles and intrinsic motivation were observed as more significant at higher levels in the organizational hierarchy than at lower levels. Patton's study, therefore, supported relationships among motivation, leadership styles, and participative climate.

Other organizational climate studies have been conducted in business firms in foreign countries. One such study was made by Butterfield and Farris (1974). These researchers administered Likert's POC to employees in Brazilian banks. They wished to determine actual and ideal bank profiles. Results were similar to previous bank study findings in the U.S. In general, employees identified actual bank profiles as autocratic or consultative and desired participative group management as the ideal profile. This Brazilian bank study also analyzed three hierarchical levels: (a) nonsupervisory, (b) supervisory, and (c) top management. No differences in the three levels resulted on the ideal profiles. Frequent differences, however, occurred on actual profiles. The higher

organizational levels tended to see their organization as being more related to participative management (System 4) than did the lower levels of the organization.

Butterfield and Farris (1974) found that, contrary to Likert's theory, System 4 methods of management were not associated with better organizational performance. These methods were, however, associated with employee feelings about their performance and about their satisfaction. In contrast to the results of Butterfield and Farris (1974), studies conducted in Yugoslavia, Sweden, and Tokyo (Likert & Likert, 1976) have related System 4 methods of management to increased organizational performance.

Research in Primary and Secondary Schools

In the past decade, several studies have tested Likert's theory and 4 Systems Model in schools and colleges. Likert and Likert (1976) adapted two instruments for this purpose. These instruments were Profile of a School (POS) and Profile of Organizational Characteristics of a University (POCU). Profile of a School (POS) was used by Lepkowski (1970) who investigated cooperative decision making and its relationship to supportive relations and communication in senior high schools. Getzel's theory (Getzel & Guba, 1957) provided the basis for the assumption that relationships existed between cooperative decision making and each of the two behavioral characteristics of climate. These behavioral characteristics were supportive relations and communication. Subjects consisted of teachers and principals from eight counties. Lepkowski (1970) reported the following relationships as positively correlated with cooperative

decision making: (a) relationships among the teachers and the principal characterized by mutual support and trust, and (b) relationships among teachers and their principals distinguished by the upward, downward, and horizontal flow of communication. In this study, teachers perceived themselves as serving in a consultative capacity to the principal.

Research investigating high school principals was conducted by Carr (1971) one year after Lepkowski's (1970) study. Carr (1971) determined the relationships between Likert's system of human management and the job satisfaction of principals. The POC along with an instrument on leadership processes yielded scores that were significantly related to scores from job satisfaction scales. Carr's (1971) test results indicated that participatory decision making enhanced the job satisfaction of high school principals. Gibson (1973) also conducted a study on principals. In this study, sixth grade students who rated principals as using a participative administrative style also viewed them as having significantly better educational productivity in their schools. The results from these studies by Lepkowski (1970), Carr (1971), and Gibson (1973) indicated that supervisory management patterns in secondary education have similarities with those patterns found in business and industrial firms. In the three areas of education, industry and business, the employee and the teacher desired participation in decision-making activities.

Most studies involving organizational climate have focused on the present and ideal perceptions of organizational members. Few researchers have attempted to actually alter the organizational climate of a school. Feitler and Blumberg (1971), however, attempted such a change in an

elementary school in an urban ghetto. The school had shown a lack of organizational stability and a failure to develop a useful decision-making process. Therefore, over a seven-month period, change agents helped develop group skills among faculty. Workshops were conducted which also improved communication skills. Teachers were gradually given decision-making power within the organization. The principal's management behavior remained the same throughout the seven-month change period.

As a measure of management patterns over time, the POC was administered by Feitler and Blumberg (1971). Teacher perception scores compared the principal's administrative pattern when he first came to the school and how he was presently functioning. The results of the Profile scores indicated a System 2-3 (benevolent authoritative-consultative) location of the principal's management pattern for pretest scores and a posttest score toward System 4 (participative) for the principal. Feitler and Blumberg (1971) found that giving teachers decision-making power in their newly formed cabinet and developing teachers' interpersonal skills were the two major factors that changed the mode of problem solving. Problem solving shifted from top level to lower group oriented levels. As a result, interaction, communication, participation in decision making, and goal setting increased significantly among faculty in the elementary ghetto school. Feitler and Blumberg (1971) concluded that the structure of school organizations typically followed that of formal organizations and, therefore, organizational change techniques could be applied to school settings.

Research in Higher Education

It is difficult to characterize organizational behavior in higher education because both the bureaucratic and professional models coexist. The viewpoints of students, faculty, and administrators about organizational behavior of educational institutions are diverse. Perspectives of such individuals have been examined in the following environments: (a) junior colleges, (b) community colleges, (c) liberal arts colleges, and (d) professional schools. In these settings the organizational variables relative to Likert's model have been investigated.

Gilbert (1972) compared the styles of teaching considered dissatisfying and those styles considered satisfying by adult students in college credit courses. Distinctions between teaching styles were made. In this study, the POC was used for data collection and in the data analysis significant differences were found between teaching styles. Gilbert (1972) reported that teacher benevolent-authoritative behaviors (System 2) were used in dissatisfying courses and teacher consultation (System 3) behaviors were applied in the most satisfying courses. Furthermore, the most significant differences between teaching styles were found in teacher-student relationships and the direction of communication flow (Gilbert, 1972).

The organizational climate of the College of Education in a large university was extensively investigated by Bechard (1971). Five college populations responded to Likert's Profile of Organizational Characteristics of a University (POCU). These populations included administration, graduate faculty, undergraduate faculty, graduate students, and

undergraduate students. The POCU was used to assess the climate of the College. Bechard (1971) believed that the administrative group was out of touch with the organizational life of the College. He based this contention on the fact that the perceptions of four groups differed with the administrators' perceptions. Results showed that faculty and students expressed significantly lower levels of satisfaction in their extent of participation in organizational life than did administrators. Administrators, however, felt a high degree of satisfaction in the participative character of the College. Bechard's (1971) findings indicated that a bureaucratic control structure existed in this College of Education.

A study similar to Bechard's (1971) was conducted by Bowers (1976). Bowers (1976) found students, faculty, and administrative groups were more similar in their perceptions of the management system in their private colleges than were those subjects examined by Bechard (1971). Bowers (1976) attempted to establish a relationship between the existing degree of responsive contemporary practices and the management systems of four liberal arts colleges in the State of Ohio. Management systems were measured by the POC. Two colleges were assessed as being less responsive to contemporary practices and two colleges were designated as more responsive. A comparison of the two groups of colleges showed that students, faculty, and administrators at the more responsive colleges perceived the management system as closer to System 4 (participative) than those respondents from the less responsive colleges. Bowers (1976) also reported results specific to the more responsive colleges. These

results stated that all three groups of faculty, students, and administrators saw the faculty group and the student group as having more influence on academic and nonacademic areas than was found in less responsive colleges. In addition, results showed that faculty and student groups of the more responsive colleges had their ideas sought and used more often than those from the less responsive colleges. These results seem to indicate that an interaction-influence network among faculty, students, and administrators was being utilized at the more responsive liberal arts colleges. It appeared that an interaction-influence network was not well developed in less responsive colleges.

At the level of community colleges, Smith (1971) used the POC instrument in 12 public community colleges. He attempted to determine what faculty members, chairmen, and upper echelon administration expected of chairmen. In addition he wished to determine the role behavior of chairmen. Results showed that the influential chairmen used democratic administrative methods. These chairmen tended to be located in departments where: (a) higher consensus existed between the chairman and his faculty over expectations for and observations of the chairman's role behavior, and (b) the chairman conformed to a greater extent with his faculty's expectations. Smith (1971) also noted that longer serving chairmen tended to be found in departments characterized by: (a) lower faculty satisfaction, (b) lower chairmen evaluations, and (c) more authoritative management systems.

In another study of 13 community colleges, Cline (1974) investigated the relationship of faculty attitudes toward collective negotiations and

their perceptions of the management styles used in their college. In general, data showed faculty favored collective negotiations. There was, however, a significant inverse relationship between faculty attitude toward collective negotiations and faculty perceptions of their institutional management style. It seemed that the more authoritative the management style of the college the more likely it was that faculty attitudes favored collective negotiations. The same preferred pattern of management expressed by community college faculty (Smith, 1971; Cline, 1974) seems to apply to certain junior colleges' faculty.

Junior colleges in the state of Texas were examined by Wheatley (1972) for the purpose of determining the relationship of perceptions between the members of the administrative group and members of the faculty group relative to real and ideal management systems. Wheatley (1972) reported that members of the administrative subgroups disagreed in their perceptions of the current management system. Those higher ranking administrative members rated the current system toward the participative system. Lower ranking members, however, viewed the system as more authoritative. Yet, the total administrative group rated their system as being mostly consultative, whereas the total faculty group perceived a benevolent authoritative system as being in effect. According to Wheatley (1972) both administrative and faculty groups agreed that management systems should be participative. These real and ideal perceptions of administration and faculty seem representative of research that had been done on this topic.

Nine professional schools from one university were examined by Lasher (1975). He attempted to determine the nature of their governance process and to determine if they fundamentally differed from more traditional university units. The major findings of this study showed that satisfaction with decision making and organizational commitment were highest in the professional schools when: (a) the faculty was highly influential, (b) when the administration and the organized faculty hierarchy were not influential, (c) when the faculty did not desire to be personally involved in decision making, and (d) when the administrative style of a unit's dean was consultative and participative. Lasher (1975) suggested that administrative style was the variable that linked the bureaucratic and collegial networks that coexist in all university units. He further explained that although deans are members of the bureaucratic network, their leadership styles in the selected professional schools played an important part in making faculty members feel they were highly influential in governance matters and were able to be personally involved if they desired. Lasher's (1975) results inferred that the governance of professional schools was not fundamentally different from the governance of liberal arts units.

Another professional school was examined by Fox (1973). He used Likert's POC to examine the organizational structure of a medical school. Attitudes of faculty regarding organization goals and characteristics were analyzed in the real and ideal dimensions. A comparison of the two dimensions was used as a measure of faculty dissonance. Fox (1973) found

that faculty classified administration between Systems 2 and 3 (benevolent authoritative and consultative). Those faculty who perceived the school as System 4 (participative) planned a career in higher education and saw no need for a faculty union. Yet, the faculty who categorized the medical school closer to System 1 (exploitative authoritative) was more likely to plan a career change and to desire a faculty union. Fox's (1973) study supported previous results by Cline (1974). Both studies indicated that a dissatisfied faculty have particular interest in the use of collective bargaining and faculty unions.

Two studies were cited on the topic of faculty satisfaction. The first study was conducted by Javier (1972) on five midwest college and universities. He explored the relationships between certain organizational variables and faculty-administrative satisfaction. Using the POC as his measurement device, Javier (1972) found that confidence had the highest correlation with satisfaction. Other strong predictors of satisfaction were: (a) supportive behavior, (b) perceived adequacy of the administrator's knowledge of relevant developments concerning the institution, (c) encouragement of innovation and creativity, and (d) congruence of institutional goals with personal and professional goals. Both faculty and administrators expressed a desire for an organizational shift toward System 4 except in these areas: (a) frequency of consultation, and (b) locus of decision making. For these two variables preference was expressed for a consultative-participative combination system of management. Javier (1972) also reported that the strongest influence on satisfaction was exerted by top administrators such as

the president and vice-president. The next most influential force on satisfaction were deans and department chairpersons followed by faculty. Students had the weakest influence on faculty and administrative satisfaction.

A second study by Gardner (1971) used the POC to determine the faculty's satisfaction with its chairmen. Twenty departments within a large university were tested. The purpose of this study was to determine the extent to which faculty satisfaction with its participation in department administrative activities was related to the organizational structure of the administrative activities and to the management style of the department chairman. Results of Gardner's (1971) study showed that faculty perceptions of the department chairman's management style were strongly and positively related to faculty satisfaction with participation. A chairman's management style was also positively related to what a faculty desired and experienced in influence, involvement, and participation in administrative activities. Congruence was strongly and positively related to faculty satisfaction with its participation.

Gardner (1971) noted that faculty expressed considerable concern for personal and interpersonal aspects of management, but had little or no concern for organizational factors in administration. Lasher's (1975) results also supported this finding. He found that faculty reported a desire for more influence rather than actual involvement in administrative activities. In addition, the higher the rank of the faculty member, the greater the actual influence and involvement.

Gardner's (1971) findings stressed the importance of the interpersonal nature of relationships between faculty and their department chairman. According to Gardner (1971) a faculty expresses satisfaction with its participation and perceives that it has sufficient influence and involvement in department administrative activities when it perceives the chairman as friendly and supportive and as having trust and confidence in it.

Summary

Research studies testing Likert's interaction-influence theory have involved many different groups and organizations. The compiled results support Likert's contention that choice of organizational management patterns directly influenced employee, faculty, or student satisfaction (Carr, 1971; Gibson, 1973; Gilbert, 1972). The System 4 management pattern has been linked to performance in business and industry (Patton, 1969; Likert & Likert, 1976; Morrow, et al., 1967) both in the U.S. and in foreign countries.

It has been more difficult, however, to relate System 4 techniques to performance in educational settings since cause and effect variables are more difficult to confine in education. It appeared that administrative actions in colleges and universities from the president to department heads have a great influence on faculty attitudes, control, and satisfaction (Bechard, 1971; Bowers, 1976; Smith, 1971).

The present concept of organizational interaction is a significant departure from the traditional bureaucratic administrative models. Yet, it retains some of the human relations principles of early proponents

such as Follett. Current departures are evident in Getzel's nomothetic-idiographic model (Getzels & Guba, 1957), in Argyris' (1962) interaction model, and in Likert's (1961) 4 System Model. These models supported the view of individual-organization interaction as necessary for high organizational effectiveness, Porter et al. (1975) summarized the individual-organization interaction by suggesting that organizations provide individuals with: (a) expectations, and (b) resources, and that individuals provide the organization with (a) needs and goals, and (b) skills and energies. These authors concluded by saying:

. . . it is proposed that the degree to which organizations value and seek to perpetuate the contributions of their members varies directly with the extent to which these contributions fulfill the expectations that the organization has of the individual. And, by the same token, the degree to which individuals value and seek to maintain membership in organizations and involvement in organizational activities as a direct function of the degree to which they find that such membership and involvement serve to satisfy their own personal needs or facilitate the achievement of goals. (Porter et al., 1975, p. 109)

These authors believed that a continuous balance should be sought between organization and individual needs. This balance allowed organizational development and progress to continue.

Likert (Bowers, 1976) contended that System 4 management created greater total control throughout the organization than did less effective systems. According to Likert (Bowers, 1976), persons at all levels of high performing organizations felt they had more influence over decisions in their working units than did persons of comparable levels at lower performing organizations. Top administrators who shared decision making at lower levels, therefore, released some of their control and allowed more knowledgeable specialists to utilize their expertise.

CHAPTER III

PROCEDURES

The purpose of this study was to investigate teachers' actual (present) and ideal (desired) perceptions of selected organizational characteristics in randomly chosen Schools and Departments of Health, Physical Education and Recreation. Schools and Departments used in this study were located in the southern and midwest districts of the U.S. The instrument used in this investigation was Likert's Profile of Organizational Characteristics (Likert & Likert, 1976) which measured seven organizational variables. Likert's Profile of Organizational Characteristics is hereafter referred to as the POC.

Answers to the following questions were sought:

1. How do teachers' actual perceptions compare with their ideal perceptions for each of seven organizational variables that characterize their Schools of HPER?
2. How do teachers' actual perceptions compare with their ideal perceptions of each of seven organizational variables that characterize their Departments of HPER?
3. How do teachers' actual perceptions of their Schools compare with the actual perceptions of teachers in Departments for each of seven organizational variables?

4. How do teachers' ideal perceptions of their Schools compare with the ideal perceptions of teachers in Departments for each of seven organizational variables?

5. How do the actual perceptions compare with the ideal perceptions of teachers grouped by academic rank for each of seven organizational variables that characterize their Schools of HPER?

6. How do the actual perceptions compare with the ideal perceptions of teachers grouped by academic rank for each of the seven organizational variables that characterize their Departments of HPER?

7. How do teachers' actual perceptions in Schools compare with teachers' actual perceptions in Departments when grouped by academic rank for each of seven organizational variables?

8. How do teachers' ideal perceptions in Schools compare with teachers' ideal perceptions in Departments when grouped by academic rank for each of seven organizational variables?

Selection of the Questionnaire

The data for this investigation were obtained from the revised questionnaire, Profile of Organizational Characteristics, developed by Likert and Likert (1976). This revised POC appeared in New Ways of Managing Conflict (Likert & Likert, 1976) and is composed of 20 items aimed at determining the management systems of organizations. Permission to use the POC was granted to this investigator for the purpose of data collection by McGraw-Hill Book Company (see Appendix A). This POC is a revised version of the original questionnaire of 43 items which appeared in The Human Organization (Likert, 1967). Since the

original POC was developed, Likert has produced several shorter forms of the POC which contain consolidated items from the original form.

The POC was chosen for this study for several reasons. First, according to Likert (1966), the POC covers a number of variables crucial to the measurement of an organization's system (see Appendix A). These variables are listed as follows and are measured by the POC items indicated: (a) leadership is measured by items 1-3, (b) motivation by items 4-5, (c) communication by items 6-9, (d) interaction by items 10-11, (e) decision making by items 12-15, (f) goal setting by items 16-17, and (g) control by items 18-20. A second reason for choosing the POC was that it yields a profile describing the management system of an organization. This profile representing the seven variables tested appears in a graphic form which is useful for data interpretation.

Third, the POC uses the well-known Likert scale for measuring each item on present and ideal perceptions. It yields quantitative data for statistical analysis. Responses to each item are scored on a 20-point continuum with number one at the left end of the continuum and number 20 at the right end. Each of the seven organizational variables is measured in the actual and ideal dimensions by designated profile items. Likert's System 1 (exploitative authoritative) is given the lowest point value (1 to 5) and System 4 (participative group) is given the highest point value (16 to 20) with System 2 and System 3 sharing a mid-position on the continuum. The continuum is diagrammatically shown in Figure 1. The score values and the names of the management systems did not appear on the POC questionnaire mailed to subjects.

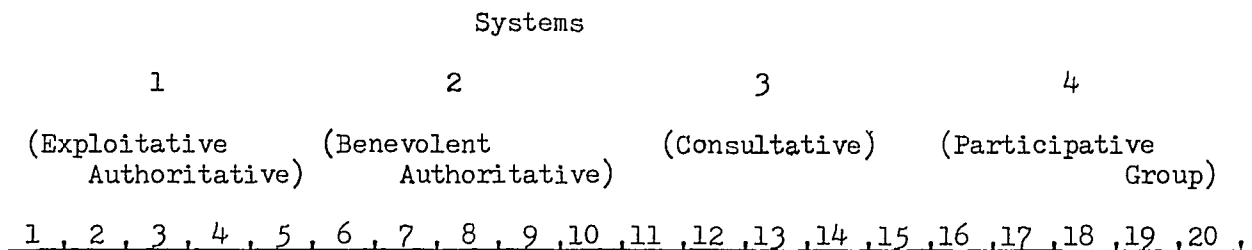


Figure 1

Continuum for each Item on the POC

The final reason for using this questionnaire was its validity and reliability. Likert (1967) tested a large number of managers from different organizations. He reported split-half reliability coefficients as high as +.96 and +.99 based on his 43-item questionnaire. The shorter 18-item form usually fields split-half reliabilities in the +.90 to +.96 range. The 20-item POC was chosen for this study because it was revised from the original POC and contained seven of the original eight organizational variables. This revised POC reflected the reliability and validity of the original POC since data obtained in current studies appear to be consistent with results from the use of the original POC. No expressed coefficients of validity are usually given for the POC. Its wide and varied use, however, has appeared to consistently and accurately assess the management systems of numerous organizations.

Adaptation of the POC

Selected terms in the 20-item POC were changed by this investigator for application to an education setting (see Appendix A). The term

"teacher" was substituted for the word "subordinate" and the term "full and part-time administrators" was substituted for the word "superiors" throughout the questionnaire. This investigator also revised the wording of two items, number 18, and number 20. On item 18 the word "evaluation" replaced the word "review." On item 20, the term "evaluation information" replaced "cost, productivity." Similar changes were made by Soucie (1975) in his application of the 43-item POC for use in education institutions.

Selection of Subjects

Schools and Departments of HPER were drawn from states in the southern and midwest districts of the United States. The southern and midwest districts included those states so designated by the American Alliance of Health, Physical Education and Recreation. Thus, the southern district consisted of the following states: South Carolina, North Carolina, Florida, Texas, Virginia, Georgia, Tennessee, Alabama, Kentucky, Louisiana, Arkansas, Mississippi, and Oklahoma. States in the midwest district consisted of Illinois, Michigan, Ohio, Wisconsin, West Virginia, and Indiana.

Colleges and universities used in this study met the following criteria: (a) colleges and universities contained a school or department offering programs in physical education and other programs such as health, recreation, and dance, (b) Schools and Departments of HPER offered undergraduate and graduate programs, (c) Departments consisted of a joint structure including both men's and women's programs and faculty, (d) institutions with Departments enrolled a total undergraduate

and graduate student body of 10,000 or more, and (e) Schools and Departments of HPER had deans or chairpersons as their directors who had served in that capacity for at least three years. Student enrollment and the undergraduate and graduate program status of colleges and universities were identified by three sources: (a) Peterson's Annual Guide to Undergraduate Study (Hegener, 1978a), (b) Peterson's Annual Guide to Graduate Study (Hegener, 1978b), and (c) college catalogs.

A list of 15 schools and 52 Departments of HPER, those that appeared to meet the criteria of this study, was compiled from all colleges and universities in the southern and midwest districts of the U.S. The names of Schools and Departments were randomly drawn from this list. More Department names were drawn in order to achieve nearly equal groups. This procedure was used since faculty numbers from Departments tended to be smaller than those from Schools. The deans and chairpersons from the randomly chosen Schools and Departments were contacted by letter (see Appendix B). They were asked to provide a list of teachers from their respective Schools and Departments designating those teachers who met the following criteria: (a) teachers who were full-time faculty members, (b) teachers who principally held a teaching appointment, and (c) teachers who had served in their Department or School for two or more years.

All deans and chairpersons did not respond to the investigators request for faculty lists. Some reported that their organization was not eligible to participate in the study since deans or chairpersons did not meet the three-year criterion designated by this study. Only one

chairperson requested that her faculty be exempt from this study. It was necessary, therefore, to continue to draw randomly from the list in order to obtain the potential of approximately 300 subjects. The six Schools and seven Departments of HPER used in this study provided names of 315 potential subjects. Of this number, 186 subjects contributed data for analysis. The list of colleges and universities providing subjects is found in Appendix B.

A second letter was sent to those deans and chairpersons who provided the faculty lists (see Appendix B). The letter expressed thanks to the administrators for their cooperation. In addition, the letter explained that each faculty member would soon receive a copy of the POC instrument. Finally, the letter emphasized that this study was descriptive in nature and not evaluative.

Administering a Pilot Study

Physical education teachers from the Department of Physical Education at Columbia College were used as subjects for a pilot study. These department members were asked to complete the POC and to record the time necessary for its completion. Respondent comments regarding the POC as a research tool were also encouraged. The investigator used the responses of this pilot group for estimating the time needed for the completion of the POC.

Collection of Data

A copy of the POC was mailed to 315 faculty members. The names of these faculty members appeared on lists acquired from deans and chairpersons of the 13 Schools and Departments of HPER used in this study

(see Appendix B). A cover letter and a postage-metered self-addressed envelope accompanied the POC (see Appendix B). The letter explained the nature of the study and requested the participation of each faculty member. Each faculty member was also informed of his/her responsibilities in regard to the study if he/she chose to serve as a subject. This letter stated the rights that would be upheld in their role as human subjects for a research project. Respondents were asked to state their rank on the POC and to return the completed instrument within two weeks.

Instructions for completing the POC were stated on the questionnaire form. Respondents were asked to answer each of the 20 items twice. One response represented their perceptions of the present management system in their organization. The second response noted their ideal perceptions of their organizations' management system. The completion of this questionnaire required about 15 minutes.

Anonymity of Respondents

The anonymity of respondents was preserved in three ways. First, a postage-metered self-addressed envelope was attached to the POC for its return. The postage-metering process was used so that the individual's city postmark would not appear on the returned envelope. The lack of a postmark made it impossible for the investigator to identify the location from which the questionnaire was mailed. Secondly, respondents were not requested to identify themselves on their POC copy. Third, a self-addressed postcard accompanied each POC. This postcard was inserted to obtain the name of each respondent, his institution, and other important

information. Each faculty member was requested to return the postcard separately from his POC so that he would remain anonymous.

The stamped self-addressed postcard referred to above was used by the investigator to gain the following information from faculty subjects (see Appendix B): (a) if they were returning the completed questionnaire, (b) if they did not meet the criteria of the study or were not interested in participating and, therefore, were not returning the completed questionnaire, and (c) if they wished to receive a copy of the research findings. Postcards were returned by 73% of the Department faculty and by 80% of the School faculty. This postcard information enabled the investigator to identify the nonrespondents so reminders could be sent. It also identified the respondents wishing copies of the research summaries.

Collection of Questionnaire Forms

Approximately two weeks after the initial mailing of the POCs and the postcards, a second request was sent to those potential subjects who had not returned postcards indicating their willingness to participate (see Appendix B). This second request encouraged subjects to complete the POC instrument and return the postcard. This letter also reminded subjects that the POC and the postcard should be mailed separately. A third request was mailed four weeks after the POC and the postcard were sent and approximately two weeks after the second request was sent (see Appendix B). The third request was mailed to all potential subjects who had not yet returned their postcards indicating whether they would participate in the study. This third letter was a final

request to nonrespondents asking their participation in this study. Nonrespondents were informed that the deadline for all returns was March 19, 1979. This deadline date was approximately six weeks from the date that POC instruments and postcards were first mailed.

Treating the Data

After data-collecting procedures were completed, responses from each POC were coded according to a predetermined plan for key punching onto IBM cards. Two computer cards were punched for each subject. The first card represented the subject's perceptions of the actual organizational management system presently operating within his/her organization. The second card coded the subject's ideal perceptions of his/her organizations management system. The academic rank of each subject and his/her organizational structure were also coded. Data were computer analyzed using the Statistical Analysis System (SAS), a preprogrammed statistical package, a three-way analysis of variance with repeated measures (Barr, Goodnight, Sall, & Helwig, 1976).

A total of 315 POC instruments were mailed to teachers from six Schools and from seven Departments of HPER. Of the 315 mailed POCs, 186 were returned and used as data in this study. One hundred and sixteen returns or 61% were from Schools and 70 returns or 56% were from Departments. In cases where respondents failed to answer certain items within the POC, only the variable represented by that item was omitted from data analysis. The remaining variables were utilized.

Uninterpretable data resulted when subjects failed either to designate rank or to use the "N" and "L" symbols for their actual and ideal perceptions in completing the scale.

Data collected from teachers were used to determine their actual and ideal perceptions for each of seven organizational variables which characterized their Schools and Departments of HPER. These seven organizational variables described the management system of each organizational structure and included the following: leadership, motivation, communication, interaction, decision making, goal setting, and control. These variables were treated as dependent variables in this study. Actual perceptions were compared to ideal perceptions by subjects in the four levels of academic rank for Schools and for Departments and by the same subjects grouped in the two organizational structures of Schools and Departments. Thus, the main effects variables for the analysis of variance were structure and rank while the repeated measure was the scale. The Scheffé post hoc test was used to locate the significance of differences between means. The general linear model for each organizational variable is cited in Appendix C for the three-way analysis of variance.

CHAPTER IV
DATA ANALYSIS AND DISCUSSION

The purpose of this investigation was to examine the actual and the ideal perceptions held by teachers regarding the organizational management systems in their Schools or Departments of HPER. The study used Likert's theory of interaction-influence networks and his 4 Systems Model of organizational management as its base (Likert, 1966). This study and its results will be described in the following parts: (a) Introduction, (b) Response percentages, (c) Data analysis, and (d) Summary.

Introduction

Data were collected from 186 respondents, 116 from Schools and 70 from Departments of HPER. Six randomly chosen Schools and seven randomly chosen Departments provided subjects from the southern and midwest districts of the U.S. The mailed questionnaire, Profile of Organizational Characteristics (POC), was used for data collection (Likert & Likert, 1976).

Information needed to answer research questions one through eight posed in the Statement of the Problem involved computations of mean scores, standard deviations, analysis of variance, and, when indicated, a post hoc test. Data were treated statistically by a three-way analysis of variance with a repeated measures design as shown in Table 1. The design presents the three independent variables of structure

Table 1
Design for Three-Way Analysis of Variance
with Repeated Measures

Structure:	Schools				Departments			
Rank:*	1	2	3	4	1	2	3	4
Scale:**	A.-I.	A.-I.	A.-I.	A.-I.	A.-I.	A.-I.	A.-I.	A.-I.

Organizational Variables:

Seven organizational variables constitute the actual and ideal perceptions in the POC scale and are treated as dependent variables. Each of the following seven variables is analyzed by structure, by rank, and by the actual and ideal perception of the scale:

leadership
motivation
communication
interaction
decision making
goal setting
control

* Rank: 1 - instructors
2 - assistant professors
3 - associate professors
4 - full professors

** Scale: A - Actual perceptions
I - Ideal perceptions

(Schools and Departments), academic rank (instructor, assistant professor, associate Professor, and full professor), and scale (actual and ideal). Structure and academic rank were treated as main effect variables while scale was treated as the repeated measure. Scale served as a repeated measure since subjects responded twice for each POC item. They first responded with their actual perceptions and again with their ideal perceptions for each of the 20 POC items.

The dependent variables used in this study were seven organizational characteristics (Table 1): leadership, motivation, communication, interaction, decision making, goal setting, and control. Each variable was measured by items on the POC. Responses to these items constituted actual and ideal perception scores for subjects. The items measuring each of the seven variables were as follows: (a) three items indicated leadership (1-3); (b) two items indicated motivation (4-5); (c) four items showed communication (6-9); (d) two items showed interaction (10-11); (e) four items measured decision making (12-15); (f) two items measured goal setting (16-17); and (g) three items indicated control (18-20). These items made up the POC (see Appendix A). Since each variable was measured by different numbers of items, mean scores were not directly comparable. The seven dependent variables remained discreet and were not computed together for an overall total. For a complete presentation of the general linear model used for each variable, see Appendix C.

Response Percentages

Questionnaires were sent to 315 potential subjects, 190 from Schools and 125 from Departments of HPER. Data were returned by 186 respondents. Table 2 presents response percentages. Of the 186 respondents, 116 were from Schools and 70 were from Departments. Of the 116 returns from Schools, academic rank was broken down as follows: (a) 28 returns from instructors, (b) 41 returns from assistant professors, (c) 19 returns from associate professors, and (d) 28 returns from full professors. The 70 returns from Departments were broken down by academic rank as follows: (a) 11 instructors responded, (b) 16 assistant professors responded, (c) 21 associate professors responded, and (d) 22 responses were from full professors. The numbers of returns by subjects were considered adequate by the investigator since approximately 59% of total responses made up the data collection with almost equal percentages of returns from each structure.

Data Analysis

The data analysis examined the eight questions of this study in two sections: (a) Scale-by-Structure, and (b) Scale-by-Structure-by-Rank. This procedure was followed because the analysis of variance statistic provides a single technique for answering several research questions simultaneously. The Scheffe' post hoc was used for further analysis when appropriate. The Scheffe' formula for computations is located in Statistics and Research in Physical Education (Weber & Lamb, 1970, p. 111). An alpha of .05 was used as the critical level for determining statistical significance. Note that the number of respondents (N)

Table 2

Response Percentages

Structure	Sent		Returns		Returns by Rank	
	N	%	N	%	N	%
Schools	190		116 (61%)		Instructor	28 (24.1%)
					Assistant Professors	21 (35.4%)
					Associate Professors	19 (16.4%)
					Full Professors	28 (24.1%)
Departments	125		70 (56%)		Instructors	11 (16%)
					Assistant Professors	16 (23%)
					Associate Professors	21 (30%)
					Full Professors	22 (31%)
Total	315		186 (59%)			

for each variable reported in tables for Chapter IV differed because specific variables were omitted if respondents failed to complete all items representing those variables.

Scale-by Structure

The Scale-by-Structure section covered information pertinent to Questions one through four. Scale referred to actual and ideal teacher perceptions and served as the independent variable with repeated effects. Structure designated teachers from Schools and Departments and acted as the independent variable of main effects. Scale was compared to structure for each of the seven dependent, organizational variables. Analysis of variance for each of these comparisons is found in Table 3 and is used in answering Questions one through four. The F values in this table indicated significant differences for six of the seven organizational variables. Control was the only nonsignificant variable and consequently did not serve as a viable organizational factor in describing management systems for respondents in this study. The general linear model for each variable is in Appendix C.

Question one asked how teachers' actual perceptions compare with their ideal perceptions for each of seven organizational variables that characterize their Schools of HPER. Mean scores, standard deviations, an analysis of variance, and a post hoc test were computed for answering this question. F values from Table 3 indicated significant differences in the design of six organizational variables; thus, further analysis was indicated. Table 4 permitted comparisons of the mean and standard deviations for actual and ideal teacher perceptions in Schools. Table 5

Table 3
 Analysis of Variance Results for Actual and Ideal
 Perceptions of Organizational Variables
 in Schools and Departments

Variables	DF _{Bet}	MS _{Bet}	MS _{Error}	F	Prob F
Leadership	1	350.697	57.059	6.15	.0142
Motivation	1	396.339	46.53	8.52	.004
Communication	1	423.552	96.55	4.39	.0378
Interaction	1	185.922	29.645	6.27	.0132
Decision Making	1	1052.203	130.153	8.08	.005
Goal Setting	1	151.344	27.56	5.49	.0203
Control	1	111.096	63.25	1.76	.1869

N = 186

Table 4
Actual and Ideal Perception Means and Standard Deviations
for Organizational Variables in Schools

	Actual			Ideal		
	N	Means	S.D.	N	Means	S.D.
Leadership	113	37.54	10.91	107	50.337	5.27
Motivation	106	22.613	8.80	100	33.150	6.03
Communication	109	47.147	13.47	107	69.019	6.48
Interaction	113	24.168	7.75	109	35.716	3.36
Decision Making	109	43.092	15.15	104	67.471	8.04
Goal Setting	113	24.398	7.67	108	33.259	4.16
Control	112	33.759	10.69	108	49.611	5.50

Table 5
Scheffé Test for Actual and Ideal
Perceptions in Schools

	Mean Differences		Critical Value (S)
Leadership	12.797	>	2.84*
Motivation	10.537	>	2.65*
Communication	21.872	>	3.74*
Interaction	11.548	>	2.04*
Decision Making	24.379	>	4.36*
Goal Setting	8.861	>	1.97*

* $p < .05$ level

presented S values obtained from the Scheffe' test. These S values showed significant differences between actual and ideal teacher perceptions, with ideal being higher for the six organizational variables of leadership, communication, interaction, goal setting, motivation, and decision making. Control was the only variable not found to show significant differences. It appeared from these results that teachers from Schools want several characteristics changed in their organizations. Responses suggested that teachers desired more influence and involvement in their organization's management.

Question two asked how actual and ideal teacher perceptions compared for each of seven organizational variables that characterize their Departments of HPER. In answering this question, mean scores, standard deviations, analysis of variance, and Scheffe' test were computed. The analysis of variance showed F values in Table 3. Table 6 shows actual and ideal mean scores and standard deviations for the seven organizational variables. Six variables were statistically significant at the .05 alpha level. These variables included: leadership, motivation, communication, interaction, decision making, and goal setting as tested by the Scheffe' formula in Table 7. S values showed significant differences between actual and ideal teacher perceptions, with ideal perceptions being higher in Departments for these six organizational variables. The variable, control was not significantly different for Department teachers. Therefore, teachers from Departments seemed to desire more participation in organizational decision making. They

Table 6
Actual and Ideal Perception Means and Standard Deviations
for Organizational Variables in Departments

	Actual			Ideal		
	N	Means	S.D.	N	Means	S.D.
Leadership	68	33.956	11.94	67	51.328	6.148
Motivation	65	19.139	8.73	59	33.864	6.021
Communication	64	42.719	14.16	61	70.344	6.633
Interaction	70	21.057	7.43	69	35.71	4.052
Decision Making	63	34.381	14.92	62	67.177	9.193
Goal Setting	69	21.304	7.28	65	33.40	4.590
Control	66	28.864	10.46	61	47.721	7.403

Table 7
Scheffe' Test for Actual and Ideal
Perceptions in Departments

	Mean Difference		Critical Value (S)
Leadership	17.372	>	3.63*
Motivation	14.725	>	3.42*
Communication	27.625	>	4.91*
Interaction	14.653	>	2.58*
Decision Making	32.796	>	5.69*
Goal Setting	12.096	>	2.53*

* $\underline{p} > .05$ level

indicated that their ideas and input should be sought and used more frequently. The outcome of these findings for subjects from Departments was the same for subjects from Schools as discussed in Question one.

Research Questions three and four examined actual perceptions between teachers from School and Department structures and ideal perceptions between teachers from School and Department structures. The third question asked, "How did teachers' actual perceptions of their Schools compare with the actual perceptions of teachers in Departments for each of seven organizational variables?" Results showed six organizational variables significantly different between teachers from Schools and those from Departments when examined by their actual perceptions. The means for teachers from Schools were higher for each variable as shown in Table 8. Analysis of variance results are reviewed in Table 3 and Scheffe post hoc values are listed in Table 9. At the .05 level, these six variables were significantly higher for teachers in Schools than for those in Departments: leadership, communication, interaction, goal setting, motivation, and decision making. These variables were also significant for teachers within Schools and within Departments as indicated by the answers to Questions one and two. Control remained a nonsignificant variable when teachers were grouped by structure and compared to each other. The results of this question yielded surprising outcomes for this investigator. Department teachers indicated that they had less influence than teachers in Schools and provided less direction in organizational management when compared to School teachers. They also appeared to have fewer opportunities for input and less effective channels of communication than did teachers in School structures.

Table 8
Actual Perception Means and Standard Deviations for
Organizational Variables in Schools and Departments

	Schools			Departments		
	N	Means	S.D.	N	Means	S.D.
Leadership	113	37.54	10.91	68	33.956	11.94
Motivation	106	22.613	8.80	65	19.139	8.73
Communication	109	47.147	13.47	64	42.719	14.16
Interaction	113	24.168	7.75	70	21.057	7.43
Decision Making	109	43.092	15.15	63	34.381	14.92
Goal Setting	113	24.398	7.67	69	21.304	7.28
Control	112	33.759	10.69	66	28.864	10.46

Table 9
Scheffe' Test for Actual Perceptions Between
Schools and Departments

	Mean Difference		Critical Value (S)
Leadership	3.584	>	3.24*
Motivation	3.474	>	3.00*
Communication	4.428	>	4.32*
Interaction	3.111	>	2.31*
Decision Making	8.711	>	5.04*
Goal Setting	3.094	>	2.24*

* $p < .05$ level

In Question four, teachers' ideal perceptions of their Schools were compared with ideal perceptions of teachers in Departments for each organizational variable. Mean scores, standard deviations and an analysis of variance provided answers to this question. No significant differences existed for ideal teacher perceptions between Schools and Departments for any of the seven organizational characteristics. Mean scores and standard deviations appear in Table 10 while Table 3 showed the analysis of variance. Table 11 provides Scheffe' scores that show lack of significance between means for six organizational variables. The control variable was not tested by the Scheffe' formula since the analysis of variance F indicated lack of significance for control in this study. These results showed that School and Department teachers were similar in their ideal perceptions of their organization's management system. As a whole, respondents viewed ideal management as that which supports participative group involvement. Whereas, the answers to Questions one through three showed differences, Question four showed similarities between School and Department teacher perceptions.

Graphic summaries of Questions one through four are presented in Figure 2. Each organizational characteristic illustrated results of actual and ideal teacher perceptions for Schools and Departments. These characteristics were presented as discreet variables reflecting their particular cumulative scores by scale and by structure and, therefore, were not meant to be compared. Comparisons within variables, however, were meaningful for emphasizing teacher differences between structures

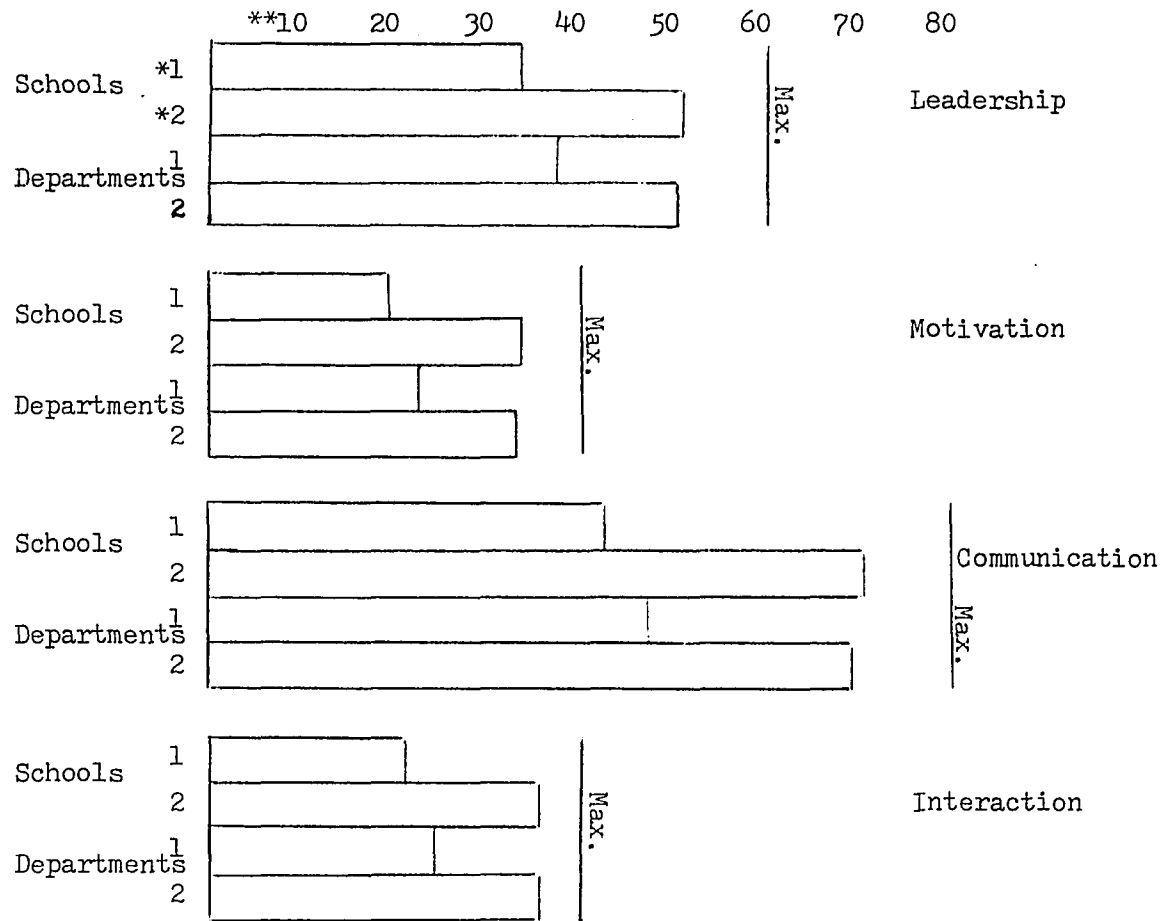
Table 10
Ideal Perception Means and Standard Deviations for
Organizational Variables in Schools and Departments

	Schools			Departments		
	N	Means	S.D.	N	Means	S.D.
Leadership	107	50.337	5.27	67	51.328	6.15
Motivation	100	33.150	6.03	59	33.864	6.02
Communication	107	69.019	6.48	61	70.344	6.63
Interaction	109	35.716	3.36	69	35.710	4.05
Decision Making	104	67.471	8.04	62	67.177	9.19
Goal Setting	108	33.259	4.16	65	33.40	4.59
Control	108	49.611	5.50	61	47.721	7.40

Table 11
Scheffe² Test for Ideal Perceptions Between
Schools and Departments

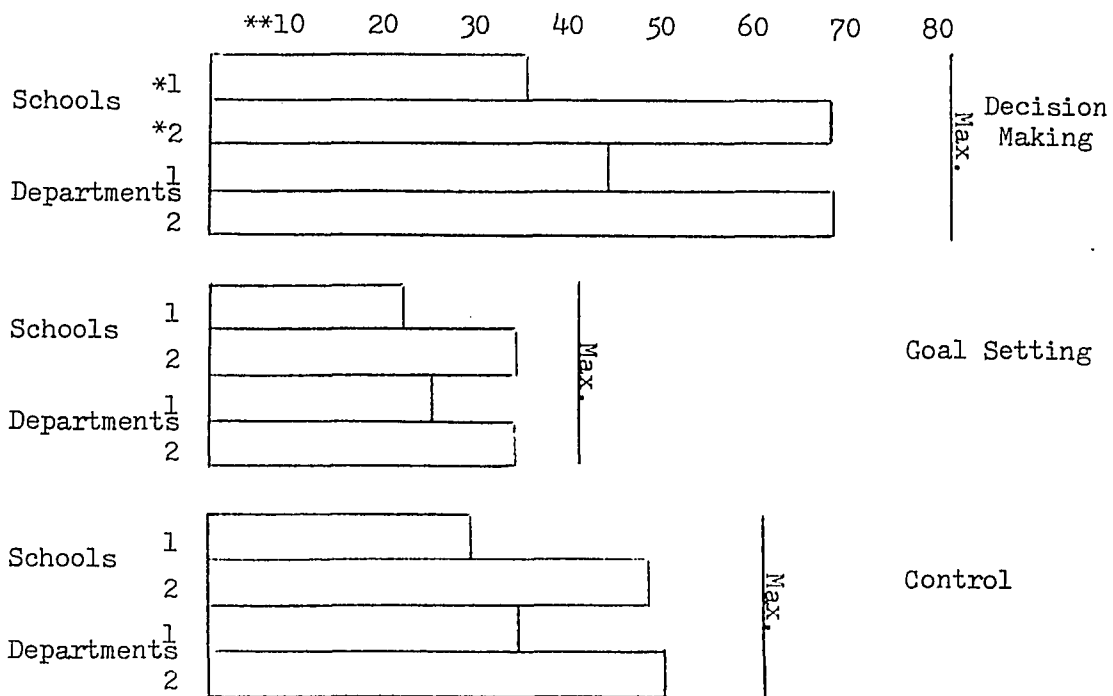
	Mean Differences		Critical Value (S)
Leadership	.991	<	3.29*
Motivation	.714	<	3.13*
Communication	1.325	<	4.40*
Interaction	.006	<	2.34*
Decision Making	.394	<	5.11*
Goal Setting	.141	<	2.30*

* $p < .05$ level



* 1 - Actual Perceptions
 * 2 - Ideal Perceptions
 ** 10- Numerical values for each variable

Figure 2. Graphs of Each Variable by Scale and Structure



* 1 - Actual Perceptions
 * 2 - Ideal Perceptions
 ** 10- Numerical values for each variable

Figure 2 (continued)

on actual perceptions and differences within structures on actual and ideal perceptions. These comparisons also showed teacher similarities on ideal perceptions.

Scale-by-Structure-by-Rank

The section, Scale-by-Structure-by-Rank, examined actual and ideal perceptions of scale between Schools and Departments when teachers were grouped by academic rank (instructors, assistant professors, associate professors, and full professors). Structure and academic rank were the independent variables for main effects. Scale was the independent variable with repeated effects and was examined by structure and rank for each of the seven organizational characteristics. These seven characteristics were the dependent variables.

The analysis of variance results in this section provided information for answering Questions five through eight. These results are found in Table 12 where F values indicate no significant differences for any of the seven organizational characteristics related to rank. The computation of Scheffe' tests, therefore, was not indicated for any of the characteristics. Further analysis by rank showed only means and standard deviations.

In the fifth question, actual perceptions were compared with the ideal perceptions of teachers grouped by academic rank for the seven organizational variables that characterize their Schools. Mean scores, standard deviations, and an analysis of variance were computed for answering this question. Table 13 presents mean scores and standard deviations while Table 12 shows analysis of variance F values for the seven variables. F values showed no significant differences between

Table 12

Analysis of Variance Results for Actual and Ideal Perceptions of
 Organizational Variables in Schools and Departments
 Based on Academic Rank

Variables	DF _{Bet}	MS _{Bet}	MS _{Error}	F	Prob. F
Leadership	3	29.45	29.450	.52	.676
Motivation	3	48.848	46.53	1.05	.373
Communication	3	70.404	96.551	.73	.539
Interaction	3	18.777	29.65	.63	.598
Decision Making	3	51.105	130.153	.39	.762
Goal Setting	3	23.454	27.562	.85	.470
Control	3	21.865	63.25	.35	.795

N = 186

Table 13

Actual and Ideal Perception Means and Standard Deviations for
Organizational Variables in Schools by Academic Rank

	1*						2*					
	N	Actual	S.D.	N	Ideal	S.D.	N	Actual	S.D.	N	Ideal	S.D.
1. Leadership	27	40.852	8.80	25	49.680	5.89	39	34.641	10.24	37	49.351	5.33
2. Motivation	28	23.714	9.14	26	32.846	6.67	36	21.028	9.19	34	33.50	4.48
3. Communication	27	47.815	13.76	27	67.666	7.51	37	43.892	13.36	35	68.629	5.25
4. Interaction	27	26.185	6.58	26	35.462	3.88	39	23.051	7.72	37	35.432	3.16
5. Decision Making	26	48.855	11.70	25	68.60	9.20	39	39.539	14.46	37	65.919	8.75
6. Goal Setting	28	25.393	6.77	27	33.407	4.11	39	23.897	7.63	37	32.00	4.88
7. Control	28	32.536	10.86	27	48.555	6.57	38	33.474	11.41	36	49.444	5.63

	3*						4*					
	N	Actual	S.D.	N	Ideal	S.D.	N	Actual	S.D.	N	Ideal	S.D.
1. Leadership	19	38.526	11.56	19	52.421	4.71	28	37.714	12.60	26	50.846	4.70
2. Motivation	18	23.00	8.95	17	33.412	5.65	24	23.417	7.83	23	32.783	7.71
3. Communication	18	48.333	11.54	19	71.790	5.48	27	50.148	14.28	26	68.923	7.21
4. Interaction	19	24.105	7.68	19	36.211	3.60	28	23.821	8.85	27	36.00	3.05
5. Decision Making	16	43.00	17.77	15	69.33	5.94	28	44.571	16.95	27	67.519	6.82
6. Goal Setting	18	24.666	6.73	18	33.66	2.87	28	23.929	9.29	26	34.615	3.47
7. Control	18	33.277	9.52	18	50.055	4.77	28	35.679	10.54	27	50.593	4.61

*Rank: 1 - Instructor
2 - Assistant Professor
3 - Associate Professor
4 - Full Professor

actual and ideal teacher perceptions for any of the seven variables when academic rank of teachers were compared within Schools. Differences in actual and ideal mean scores showed that teachers' ideal perceptions were arithmetically higher for each academic rank but not significantly higher statistically. These results indicated that rank was not an influential factor relative to how teachers viewed their present and their desired management systems in Schools.

Question six compared actual and ideal perceptions of teachers grouped by academic rank for the seven organizational variables that characterize their Departments of HPER. Means and standard deviations are reported in Table 14. The analysis of variance results were located in Table 12. These tests showed no significant differences between actual and ideal teacher perceptions of any of seven organizational variables when academic rank was compared within Departments. Arithmetic differences on actual and ideal mean scores were higher for ideal teacher perceptions at each academic rank but not statistically higher. These results showed academic rank in Departments as having no significant influence when comparing actual to ideal teacher perceptions. Similar findings were reported for Schools in Question five.

Research Questions seven and eight compared actual perceptions by rank in Schools and Departments as well as ideal perceptions by rank in Schools and Departments. In answering Question seven, "How did teachers' actual perceptions in Schools compare with teachers' actual perceptions in Departments when grouped by academic rank for each of seven organizational variables?," mean scores and standard

Table 14

Actual and Ideal Perception Means and Standard Deviations for
Organizational Variables in Departments by Academic Rank

	1*						2*					
	N	Actual	S.D.	N	Ideal	S.D.	N	Actual	S.D.	N	Ideal	S.D.
Leadership	10	36.90	8.35	10	52.00	6.58	15	30.267	8.51	15	49.60	5.94
Motivation	10	21.80	9.93	8	35.625	4.31	14	17.214	7.76	14	33.571	5.97
Communication	8	49.875	10.51	8	69.50	6.07	14	34.214	16.14	14	69.143	7.28
Interaction	11	23.091	5.50	11	36.364	3.80	15	18.133	5.25	15	35.20	4.87
Decision Making	10	38.60	17.12	10	70.80	8.12	15	28.733	13.70	15	63.33	7.56
Goal Setting	11	22.091	6.85	9	33.33	5.29	15	18.466	7.31	15	33.866	3.64
Control	11	33.273	9.81	10	48.30	8.68	15	24.133	10.04	15	45.333	6.25

	3*						4*					
	N	Actual	S.D.	N	Ideal	S.D.	N	Actual	S.D.	N	Ideal	S.D.
Leadership	21	33.095	15.33	21	52.191	6.50	22	36.909	11.20	21	51.381	5.92
Motivation	20	15.80	8.65	19	34.105	5.20	21	22.333	7.82	20	32.783	7.61
Communication	20	41.550	13.51	19	70.947	6.02	22	46.591	12.41	20	70.950	7.25
Interaction	21	20.571	9.45	21	36.238	3.73	23	22.435	7.10	22	35.228	4.04
Decision Making	17	31.882	13.82	18	68.00	9.34	21	38.429	14.79	19	67.526	10.30
Goal Setting	20	22.15	7.34	19	33.737	4.29	23	22.043	7.40	22	33.50	5.33
Control	20	28.40	10.64	18	48.722	7.43	20	30.45	10.23	18	48.389	7.71

*Rank: 1 - Instructor
2 - Assistant Professor
3 - Associate Professor
4 - Full Professor

deviations are presented in Table 15. Analysis of variance results were found in Table 12. The F values in Table 12 showed no significant differences for actual teacher perceptions on any of the seven organizational variables when subjects are grouped by academic rank and compared between Schools and Departments. Mean scores in Departments were arithmetically lower for assistant professors, associate professors, and full professors on each variable when compared to mean scores of Schools. Department instructors, when compared to School instructors, also showed lower arithmetic mean scores on all organization variables except for communication. Although these mean scores were not significantly different, they showed arithmetic differences consistent with the results of Question three (Tables 8 & 9) in which Department teachers viewed organizational variables significantly lower than did School teachers. In general, when teachers were grouped by academic rank, they showed more similarity than differences in their perceptions of organizational systems.

Question eight asks, "How did teachers' ideal perceptions in Schools compare with teachers' ideal perceptions in Departments when grouped by academic rank for each of seven organizational variables?" Mean scores, standard deviations, and an analysis of variance were computed. Table 16 presents means and standard deviations, and Table 12 presented the analysis of variance. F values showed no significant differences for ideal teacher perceptions on any of the seven organizational variables when subjects were grouped by academic rank and compared between Schools and Departments. Mean scores showed only slight arithmetic

Table 15

Actual Perceptions Means and Standard Deviations for Organizational
Variables in Schools and Departments by Academic Rank

	Instructors						Assistant Professors					
	Schools			Departs.			Schools			Departs.		
	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.
Leadership	27	40.852	8.80	10	36.900	8.35	39	34.641	10.24	15	30.266	8.51
Motivation	28	23.714	9.14	10	21.80	9.93	36	21.028	9.19	14	17.214	7.76
Communication	27	47.815	13.76	8	49.875	10.51	37	43.892	13.36	14	34.214	16.14
Interaction	27	26.185	6.58	11	23.091	5.50	39	23.051	7.72	15	18.133	5.25
Decision Making	26	46.885	11.70	10	38.600	17.12	39	39.539	14.46	15	28.733	13.70
Goal Setting	28	25.393	6.77	11	22.091	6.85	39	23.897	7.63	15	18.466	7.31
Control	28	32.536	10.86	11	33.273	9.81	38	33.474	11.41	15	24.133	10.04

	Associate Professors						Full Professors					
	Schools			Departs.			Schools			Departs.		
	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.
Leadership	19	38.526	11.56	21	32.095	15.33	28	37.714	12.60	22	36.909	11.20
Motivation	18	23.00	8.95	20	15.80	8.65	24	23.417	7.83	21	22.333	7.82
Communication	18	48.333	11.54	20	41.550	13.51	27	50.148	14.28	22	46.591	12.41
Interaction	19	24.105	7.68	21	20.571	9.45	28	23.821	8.85	23	22.435	7.10
Decision Making	16	43.00	17.77	17	31.882	13.82	28	44.571	16.95	21	38.429	14.79
Goal Setting	18	24.666	6.73	20	22.150	7.34	28	23.929	9.29	23	22.043	7.40
Control	18	33.277	9.52	20	28.400	10.64	28	35.679	10.54	20	30.450	10.03

Table 16

Ideal Perception Means and Standard Deviations for Organizational
Variables in Schools and Departments by Academic Rank

	Instructors						Assistant Professors					
	Schools			Departs.			Schools			Departs.		
	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.
Leadership	25	49.680	5.89	10	52.00	6.58	37	49.351	5.33	15	49.60	5.94
Motivation	26	32.846	6.67	8	35.625	4.31	34	33.50	4.48	14	33.571	5.97
Communication	27	67.666	7.51	8	69.50	6.07	35	68.629	5.25	14	69.143	7.28
Interaction	26	35.462	3.88	11	36.364	3.80	37	35.432	3.16	15	35.20	4.87
Decision Making	25	68.60	9.20	10	70.80	8.12	37	65.919	8.75	15	63.33	7.56
Goal Setting	27	33.407	4.11	9	33.33	5.29	37	32.00	4.88	15	33.866	3.64
Control	27	48.555	6.57	10	48.30	8.68	36	49.444	5.63	15	45.333	6.25

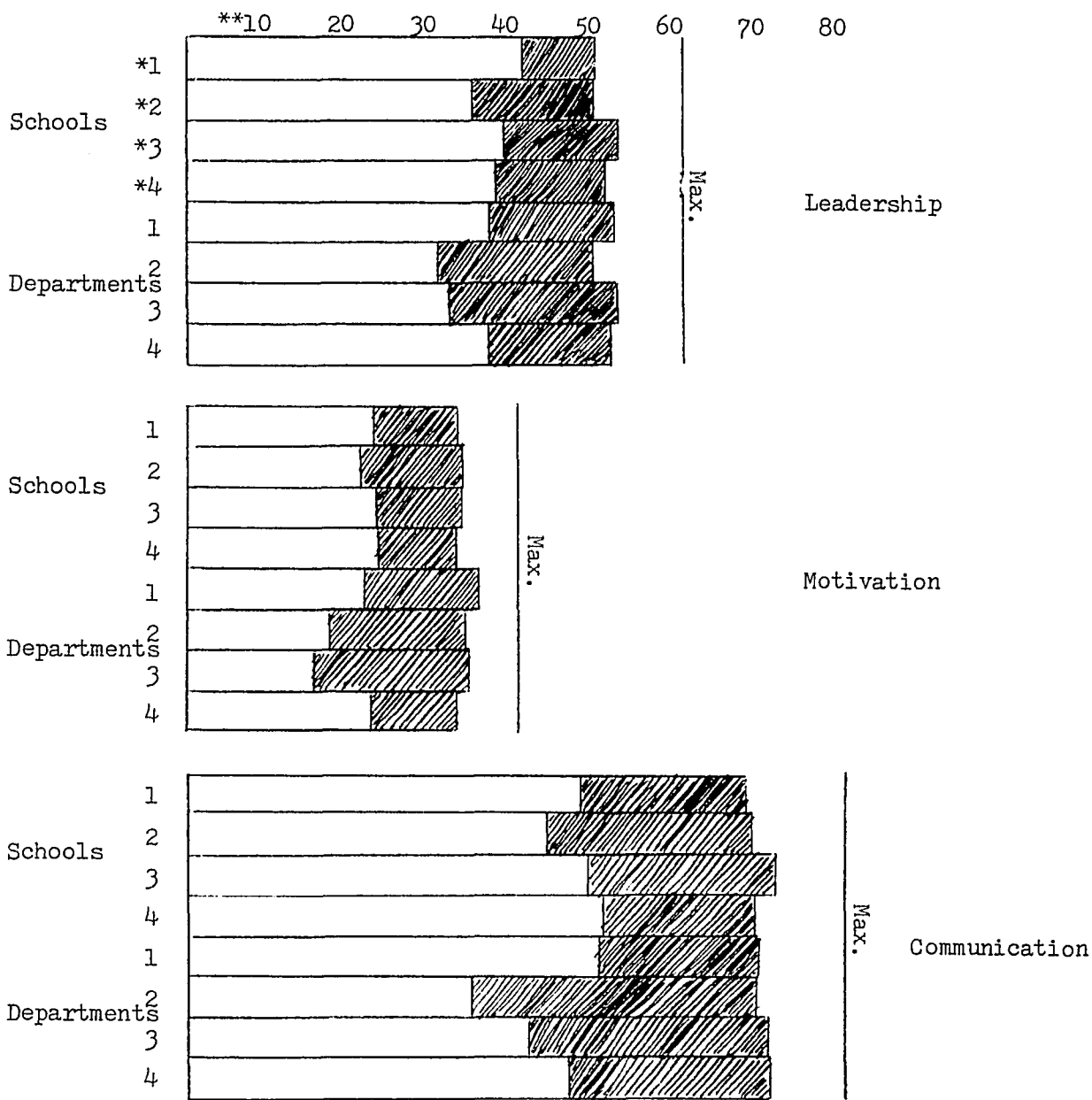
	Associate Professors						Full Professors					
	Schools			Departs.			Schools			Departs.		
	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.	N	Means	S.D.
Leadership	19	52.421	4.71	21	52.191	6.50	26	50.846	4.70	21	51.381	5.92
Motivation	17	33.412	5.65	19	34.105	5.20	23	32.783	7.71	20	32.783	7.61
Communication	19	71.790	5.48	19	70.947	6.02	26	68.923	7.21	20	70.950	7.25
Interaction	19	36.211	3.60	21	36.238	3.73	27	36.00	3.05	22	35.228	4.04
Decision Making	15	69.33	5.94	18	68.00	9.34	27	67.519	6.82	19	67.526	10.30
Goal Setting	18	33.66	2.87	19	33.737	4.29	26	34.615	3.47	22	33.50	5.33
Control	18	50.055	4.77	18	48.722	7.43	27	50.593	4.61	18	48.389	7.71

differences between academic groups of instructors, assistant professors, associate professors, and full professors on ideal perceptions between Schools and Departments. These findings were consistent with those for Question four (Table 11) in which no significant differences were found between School and Department teachers on their ideal perceptions.

Graphs in Figure 3 summarize results of Questions five through eight. Although no significant differences were attributed to rank in these questions, individual graphs showed similarities between means when analyzed from the standpoint of rank. Variables were treated discreetly and were not intended to be compared to one another.

Discussion of Group Profiles

The results of these eight research questions allowed generalizations to be made regarding the management systems of Schools and Departments as perceived by teachers in this study. A review of the four management systems developed from Likert's (1967) interaction-influence network theory was helpful in interpreting these results. Exploitative authoritative management, the first management system, used surveillance and direction on employees with little regard for human interdependence. This system generally produced mediocre performance and widespread dissatisfaction (Marrow et al, 1967). Benevolent authoritative management, the second system, was like System 1 in that it used surveillance and direction in dealing with employees. In addition, this system allowed limited subordinate input into organizational matters, yet decisions were made at the highest levels. Dissatisfaction was less intense in this system when compared to System 1, and performance was fair to good. The

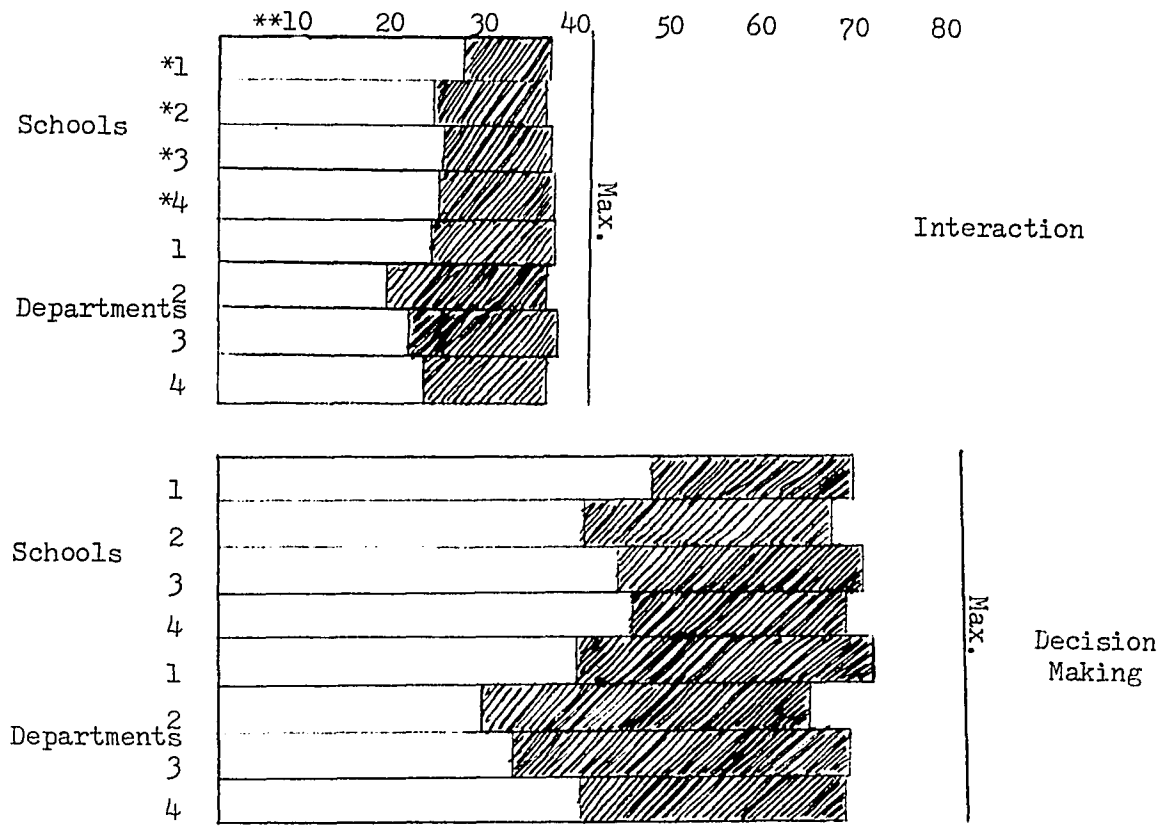


Actual Perceptions [white bar]
 Ideal Perceptions [hatched bar]

*Rank: 1 - Instructors
 2 - Assistant Professors
 3 - Associate Professors
 4 - Full Professors

** 10 - Numerical values for each variable

Figure 3. Graphs of Each Variable by Scale, Structure, and Rank.

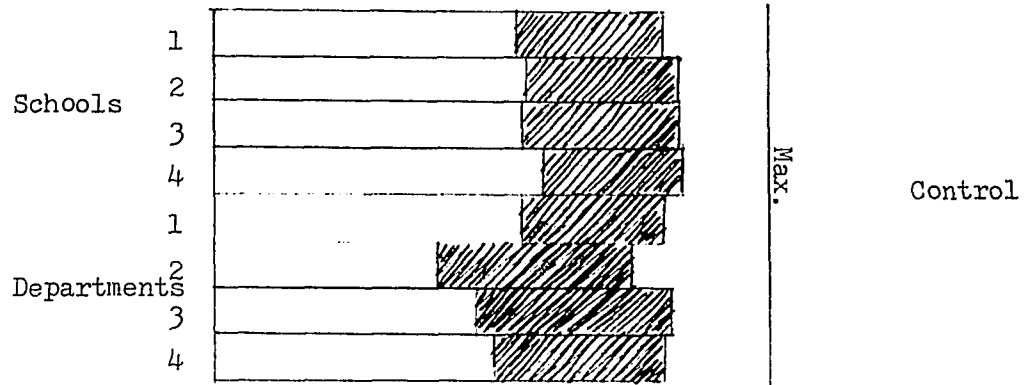
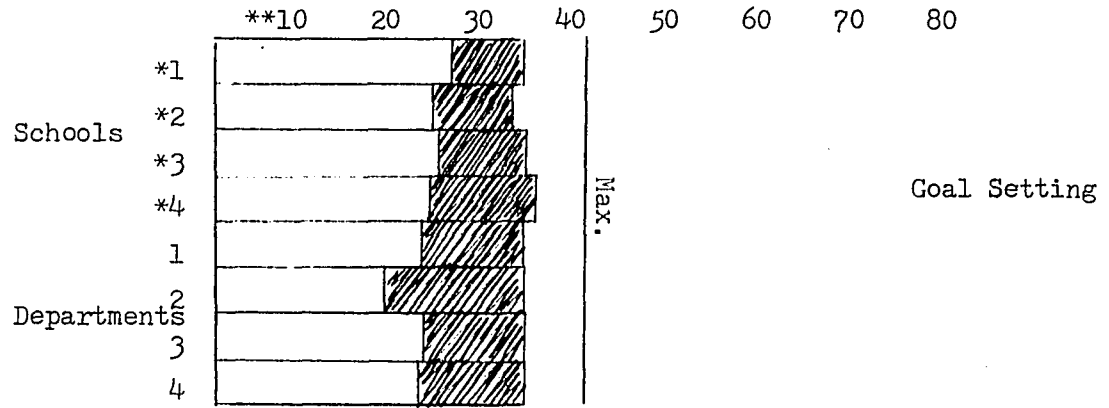


Actual Perceptions
 Ideal Perceptions

* Rank: 1 - Instructors
 2 - Assistant Professors
 3 - Associate Professors
 4 - Full Professors

**10 - Numerical values for each variable

Figure 3 (continued)



Actual Perceptions □
 Ideal Perceptions ▨

* Rank: 1 - Instructors
 2 - Assistant Professors
 3 - Associate Professors
 4 - Full Professors
 **10 - Numerical values for each variable

Figure 3 (continued)

third management system was consultative management. This system used one-to-one consultation for employee involvement. Members of the organization felt some responsibility for attaining organization goals; thus, satisfaction was fairly high and performance was good (Marrow et al., 1967). System 4 was labeled participative group and referred to decision making groups that were structured throughout the organization. Information flowed freely, motivation was high, and the interpersonal climate was one of trust in this system (Marrow et al., 1967). In order to graphically represent these four systems relative to the results of this study, mean scores were computed for each of the 20 items appearing on the POC (Table 17). Total subject responses within Schools and within Departments for actual and ideal perceptions were plotted in Figure 4 so that groups could be compared.

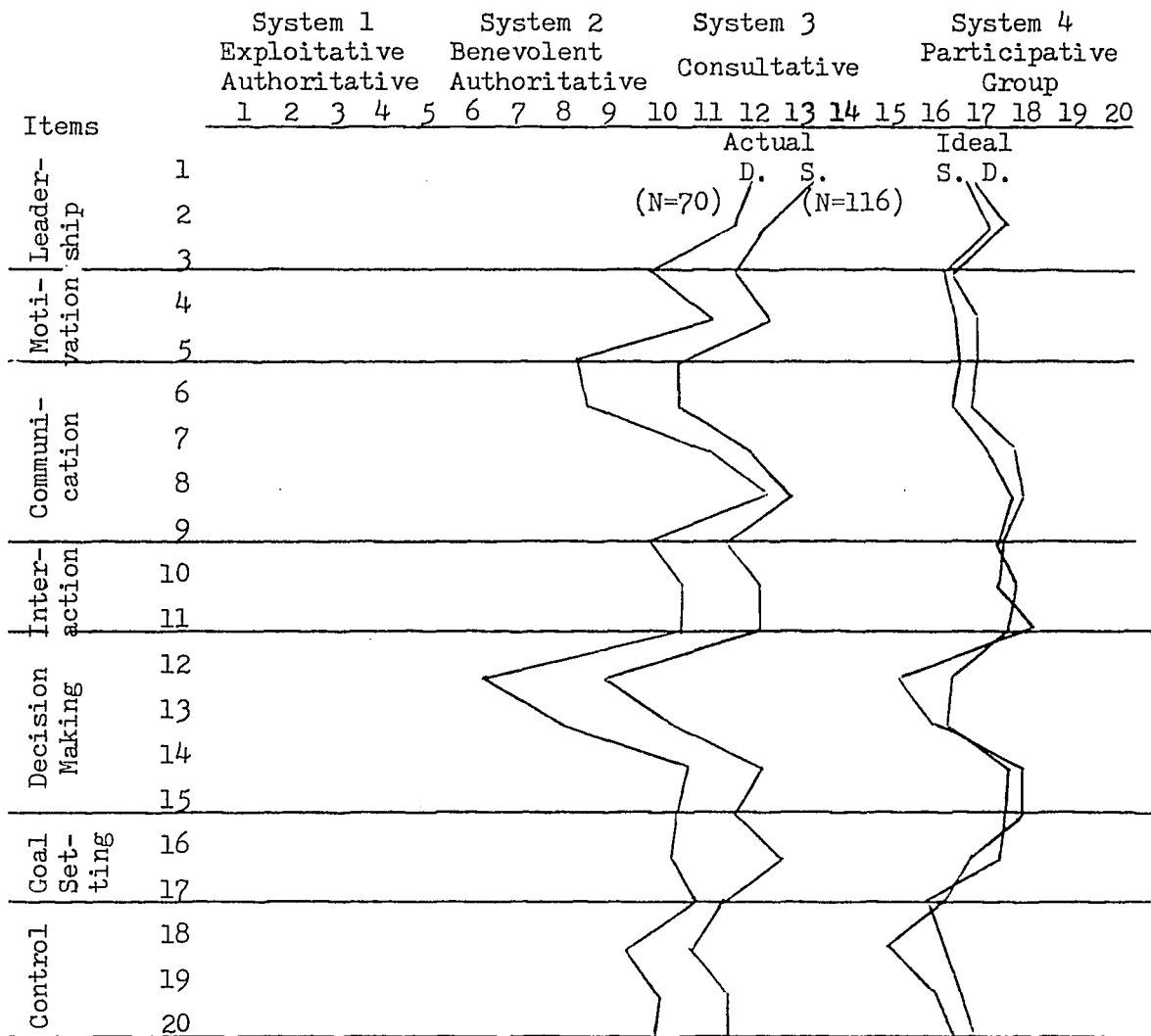
Teachers from the seven Departments characterized their management system between benevolent authoritative, System 2, and consultative, System 3, on their actual teacher perceptions for the 20 items. The means for seven items fell under System 2 and the means for 13 items were under System 3. Teachers from the six Schools, however, showed higher mean scores than those from Departments for all POC items for actual perceptions. Schools were characterized by System 3 management; thus, more consultation was perceived as used in Schools than in Departments by teachers.

The two structures differed in perceptions from System 2 to System 3 in several ways. Department teachers perceived that information flowed mostly downward and that full and part-time administrators

Table 17

Mean Scores for the 20 POC Items by

	Scale and Structure		Departments	
	Schools			
	Real	Ideal	Real	Ideal
Leadership				
1.	13.456	16.818	12.116	16.976
2.	12.4	17.35	11.768	17.734
3.	11.7	16.3	9.908	16.435
Motiva- tion				
4.	12.5	16.539	11.166	17.022
5.	10.45	16.637	8.310	17.007
6.	10.75	16.422	8.598	16.829
7.	12.166	17.319	11.232	17.911
8.	12.983	17.913	12.436	18.09
9.	11.478	17.455	9.830	17.485
Communication				
10.	12.218	17.933	10.529	17.554
11.	12.068	17.792	10.529	18.204
Inter- action				
12.	8.881	16.44	6.185	15.392
13.	10.383	16.379	7.814	16.024
14.	12.323	17.696	10.708	17.99
15.	11.737	17.633	10.401	17.716
Decision Making				
16.	12.666	17.413	10.359	17.081
Goal Setting				
17.	11.407	15.945	10.85	16.357
18.	10.735	16.202	9.278	15.25
19.	11.434	16.61	10.127	16.05
Control				
20.	11.578	16.895	9.894	16.423



D - Departments
S - Schools

Figure 4. Group Profiles for the 20 POC Items.

had limited knowledge of problems faced by teachers. They also viewed the technical and professional knowledge used in decision making and the responsibility for achieving organizational goals as located at middle and top organizational levels. These teachers perceived that evaluation information was used for reward and punishment. On the other hand, teachers from Schools perceived information as flowing downward and upward in the organization and that full- and part-time administrators knew teacher problems quite well. They viewed the technical and professional knowledge used in decision making as originating throughout the organization to some extent and that there was a general feeling of responsibility for achieving organizational goals. In addition, teachers in Schools viewed evaluation information as a means toward rewards and limited self-guidance. As a whole, School teachers seemed more satisfied with their organizational system since the discrepancy between their actual and ideal perception scores was less than the discrepancy between those same scores for teachers in Departments.

Teachers from both structures agreed to some extent that confidence was shown toward them and that their ideas were usually sought and used regarding decisions related to their work. They experienced cooperative teamwork to a moderate degree. Yet, downward communication was accepted with caution while upward communication had limited accuracy. Some covert resistance toward organizational goals seemed present; thus, the informal organization sometimes resisted the formal organization. Both groups of teachers perceived decisions regarding policy being made at top levels with limited delegation.

For ideal perceptions of teachers, Schools and Departments fell within System 4. Teachers from both structures indicated a desire for group participation in decisions throughout the organization. This ideal management system allowed goals to be established by the group, and information to flow freely in all directions (Bowers, 1976). These results provided by all subjects strongly suggested that teachers want more influence over decisions that affect them and they want more influence over the total organization to which they belong. Although few differences were cited between School and Department structures on the ideal dimension, Departments did show slightly higher arithmetic means for 13 of the 20 items when compared to Schools. These overall findings for ideal perceptions supported Likert's (1961, 1967) interaction-influence network theory and, thus, his contention that employees want participative group involvement in the management of their organizations.

Summary

Currently, few studies in physical education have examined perceived differences in organizational structures (Soucie, 1975; Dannehl, 1970). Research and theory development have also been lacking in physical education organization and administration. Theories and principles from allied administrative fields, however, have been applied to physical education. One such theory is Likert's (1967) interaction-influence network theory. The present investigation utilized Likert's (1967) theory and system model to determine teacher perceptions of selected organizational characteristics that describe their Schools and Departments of HPER.

The following review of criteria for Schools, Departments, and teachers used in this study may be helpful for summarizing results. School and Department structures were randomly chosen from those located in the southern and midwest districts of the U.S. that met the following criteria. First, these Schools and Departments offered programs in physical education, and at least one other program such as health, recreation and dance. Second, these structures provided undergraduate and graduate programs. Third, Departments were not structurally separated by sex, and fourth, institutions with Departments of HPER were required to have a total undergraduate and graduate enrollment of 10,000 or more students. The final criteria of structures was that Schools and Departments must have deans and chairpersons as their directors who have served in that position for three or more years. These criteria were chosen as a means of equalizing Schools and Departments based on size and complexity of their structures. One difference between these structures, of interest to the investigator, was that Schools were not organized under a larger academic school or college. Departments, however, were designated as subdivisions of Schools and Colleges of Education.

Teachers used in this study also met certain criteria. First, they were considered full-time faculty members. Second, they principally held teaching appointments, and third, they had served in their Departments or Schools for two or more years. These criteria were

established to obtain subjects who had worked in their organizations for a sufficient period of time to be familiar with the organizational variables examined in this study and who were involved in the teaching aspect of academic performance.

Teachers were asked to characterize the management system of their organizations presently (actual) and then to characterize the system they would like to see functioning. These actual and ideal perceptions were based on seven organizational variables. These variables included leadership, communication, motivation, interaction, decision making, goal setting, and control. Likert (1966) felt that this group of variables had significant influence on end results in organizations. He also contended that these variables indicate the condition of the internal state of the organization.

The present study determined that teachers from Departments expressed significantly lower perceptions of their actual management system than teachers from Schools. Department teachers described their actual system between benevolent authoritative and consultative. These results are similar to findings by Wheatley (1972) and Fox (1973). Wheatley's (1972) junior college faculty group indicated a benevolent authoritative system was in effect, whereas Fox's (1973) medical school faculty characterized their organizational structure between benevolent authoritative and consultative. Results from Departments indicated that since these teachers shared perceptions in two management systems they experienced confusion and inconsistency within that organizational structure. It seemed these teachers were consulted some of the time and directed at other times. This may have caused confusion in roles

for teachers resulting in hostility or apathy. If Department teachers experienced no consistent patterns of organizational management, they may have felt little responsibility for the consequences of organizational decisions. They may also have felt little commitment to implement decisions that lacked their input. Teachers in Schools, however, viewed their actual organizational management system consistently as consultative. These findings were similar to those of Lepkowski's (1970) who found that senior high school teachers perceived themselves as functioning in a consultative system. Due to these pattern differences between teachers from Schools and from Departments, those from Schools may have experienced more opportunities for influencing organizational decisions than Department teachers.

One reason for differences between School and Department teachers may have been attributed to the fact that the six Schools examined were autonomous structures within educational institutions; they were not subdivisions of other academic structures. The seven Departments, on the other hand, were substructures of larger Colleges or Schools of Education within their educational institutions. Therefore, teachers in Departments may have felt less influential over organizational matters since Colleges or Schools of Education exerted some control over the Departments. Schools, however, had no higher academic structure with which to share control. These findings and conclusions were consistent with those of Dannehl's (1970). He found that administrators and faculty in Schools and Colleges of Physical Education viewed organizational climate more favorably than those in Departments of Physical Education

within Colleges of Education or Fine Arts. He concluded that organizational structure evidently had a more significant influence on perception of climate than was generally recognized. If the autonomy of structures was a valid concern, then Department leaders and members may need to innovate their present management system toward developing meaningful consultative and participative interaction within the unit. This, in turn, may develop a more cohesive and loyal Department group.

In general, teachers from both Schools and Departments perceived their ideal management system as significantly different from their actual management system. They indicated a desire for group participation in the organizational processes of their Schools and Departments. These results were consistent with broad organizational studies conducted by Likert (1961, 1966), Marrow et al. (1967), and Butterfield and Farris (1974). Studies in educational institutions that support these findings have included state colleges (Langlois, 1973), community junior colleges (Laughlin, 1973), and undergraduate physical education departments in the state of Ohio (Douglas, 1969).

Although teachers from Departments were significantly lower on their actual perceptions than were teachers from Schools, both groups agreed on an ideal management system. This desired system was significantly different from their actual management system, with Department teachers having a wider range from their actual to ideal perceptions than teachers from Schools. Researchers have linked such results with satisfaction of faculty with their organization. Carr (1971), Javier (1972), and Lasher (1975) indicated that the wider the differences in actual and

ideal perceptions among respondents, the less satisfied these respondents were with their present system. Javier's (1972) findings were of particular interest. His faculty and administrator subjects desired a shift to participative management except for concerns regarding frequency of consultation and locus of decision making. In these two areas, they preferred consultation rather than participative groups. The findings of this study indicated, therefore, that teachers generally were not completely satisfied with their present management system and that Department teachers appeared less satisfied than teachers from Schools. These general conclusions seem appropriate since people usually strive to improve their present condition. This research further pointed out that teachers' academic rank made no significant difference in relation to their perceptions of actual or ideal management systems. These results were similar to those findings of Dannehl (1970).

Another research finding indicated the variable, control, was the only nonsignificant variable of the seven organizational variables. These results may be attributed to the fact that colleges and universities had similar reward systems regarding salary, promotions, and recognitions that were generally accepted among faculty members. The way in which control data was used may also have caused the informal organization to resist the formal organization within Schools and Departments.

Findings in regard to ideal perceptions were not surprising to this investigator since colleges and universities are considered

professional organizations and can provide conducive environments for the use of participative management. Faculty members are highly educated and highly skilled individuals who possess similar levels of education and share in collegial relationships with peers. From the findings of this study, faculty members indicated a desire for increased participation and influence in the management of their organizations. Participative decision making and group interaction techniques may provide effective ways to utilize the talents of faculty members for group participation in the future.

These findings were intended to help teachers understand their collective views and further understand the nature of their organizations. These results may sensitize administrators and teachers to collective teacher responses regarding their organizational management systems. These findings provided information important to the improvement or restructuring of Department and School organizations.

The information gained from this study may be used to raise the awareness of individuals in specific Schools and Departments as they attempt to analyze their particular organizational setting. Faculty members as a group can describe the seven variables in their School or Department and determine improvements that they wish to work toward. When specific variables are examined efforts toward defined changes may be made. These change efforts allow faculty members to work for organizational improvements in a systematic way.

CHAPTER V
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study investigated teacher perceptions of organizational characteristics in Schools and Departments of HPER. The study compared actual and ideal teacher perceptions by their organizational structure and by their academic ranks within that structure.

A total of 186 respondents in six Schools of HPER and seven Departments of HPER located in the southern and midwest districts of the U.S. provided data for this study. Scores obtained from mailed questionnaires were used for data analysis in answering the research questions. Each respondent's academic rank was requested on the questionnaire.

The SAS Computer Program was used to compute the three-way analysis of variance using repeated measures to determine if significant differences existed between the actual and ideal perceptions of teachers based on their organization's structure and on their academic rank. When significant F ratios occurred between mean scores, the Scheffé test was used to determine where the mean differences were located.

Statistical analysis of data indicated the following results. There existed a statistical significance between actual and ideal teacher perceptions for six organizational variables that described School structures. There existed a statistical significance between actual and ideal teacher perceptions for six organizational variables that

described Department structures. There existed a statistically significant difference between actual teacher perceptions in Schools and actual teacher perceptions in Departments on six organizational variables. In each of the three findings above, the six significant variables were the same: leadership, motivation, communication, interaction, decision making, and goal setting. Significant differences were not indicated for the variable control on any comparisons. Significant differences were not indicated for the four academic ranks when compared within Schools, within Departments, or between Schools and Departments.

Conclusions

Based on the questions which were tested and within the limitations of this study, the following conclusions are offered.

1. How do teachers' actual perceptions compare with their ideal perceptions for each of seven organizational variables that characterize their Schools of HPER?

(a) There were significant differences between actual and ideal teacher perceptions in Schools, with ideal perceptions higher, for six organizational variables. These significant variables included leadership, motivation, communication, interaction, decision making, and goal setting.

(b) There was no significant difference in the variable control.

2. How do teachers' actual perceptions compare with their ideal perceptions for each of seven organizational variables that characterize their Departments of HPER?

(a) There were significant differences between actual and ideal teacher perceptions in Departments, with ideal perceptions higher, for six organizational variables. These variables included leadership, motivation, communication, interaction, decision making, and goal setting.

(b) There was no significant difference in the seventh variable control.

3. How do teachers' actual perceptions of their Schools compare with the actual perceptions of teachers in Departments of HPER for each of seven organizational variables?

(a) There were significant differences for actual teacher perceptions between Schools and Departments. The faculty in Schools had higher means on six organizational variables. These variables included leadership, motivation, communication, interaction, decision making and goal setting.

(b) No significant difference was found for control, the seventh variable. Mean scores, however, for control showed Schools arithmetically higher than Departments for actual perceptions.

4. How do teachers' ideal perceptions of their Schools compare with the ideal perceptions of teachers in Departments for each of seven organizational variables?

No significant differences were found for ideal teacher perceptions between School and Department structures on any of the seven organizational variables.

5. How do the actual perceptions compare with the ideal perceptions of teachers grouped by academic rank for each of seven organizational variables that characterize their Schools of HPER?

No significant differences were found between actual and ideal teacher perceptions on any of the seven organizational variables when the academic rank of subjects was compared within Schools of HPER.

6. How do the actual perceptions compare with the ideal perceptions of teachers grouped by academic rank for each of seven organizational variables that characterize their Departments of HPER?

No significant differences appeared between actual and ideal teacher perceptions on any of the seven organizational variables when the academic rank of subjects was compared within Departments.

7. How do teachers' actual perceptions in Schools compare with teachers' actual perceptions in Departments when grouped by academic rank for each of seven organizational variables?

No significant differences were found for actual teacher perceptions on any of the seven organizational variables when the academic rank of subjects was compared between School and Department structures.

8. How do teachers' ideal perceptions in Schools compare with teachers' ideal perceptions in Departments when grouped by academic rank for each of seven organizational variables?

No significant differences appeared for ideal teacher perceptions on any of the seven organizational variables when the academic rank of subjects was compared between Schools and Departments of HPER.

In general, the academic rank of teachers had no influence on actual or ideal perceptions. Structure, however, was a significant variable since Department teachers were significantly lower on actual perceptions than were School teachers. Scale also was a significant variable in that ideal teacher perceptions were significantly higher than actual teacher perceptions for both Schools and Departments. The six organizational variables of leadership, motivation, communication, interaction, decision making, and goal setting were significantly higher on ideal teacher perceptions within Schools and Departments. They were also significantly different for actual perceptions between School and Department teachers. Control was the only non-significant variable.

Recommendations

The present investigation led to the following recommendations for future study:

1. Replicate this study in areas of the U.S. other than the southern and midwest districts.
2. Investigate Departments in this study to determine reasons for their significantly lower responses on organizational variables when compared with Schools.
3. Compare Schools or Departments of HPER with other academic schools or departments to determine if organizational patterns of teacher perceptions are similar.
4. Determine whether the organizational climate of classrooms within a structure is influenced by or similar to the organizational climate within the structure itself.

BIBLIOGRAPHY

- Abbott, M.G. Hierarchical impediments to innovation in educational organizations. In F.D. Carver, & T.J. Sergiovanni (Eds.), Organizations and human behavior: Focus on schools. New York: McGraw-Hill, 1969.
- Alutto, J.A., & Belasco, J.A. A typology for participation in organizational decision making. Administrative Science Quarterly, 1972, 17, 117-125.
- Argyris, C. The individual and the organization. Administrative Science Quarterly, 1959, 4, 145-167.
- Argyris, C. Interpersonal competence and organizational effectiveness. Homewood, Illinois: Dorsey, 1962.
- Argyris, C. Integrating the individual and the organization. New York: John Wiley, 1964.
- Baldrige, J.V., Curtis, D.V., Ecker, G., & Riley, G.L. Diversity in higher education. Journal of Higher Education, 1977, 48(4), 367-388.
- Barnlund, D.C. A comparative study of individual, majority, and group judgement. Journal of Abnormal and Social Psychology, 1959, 58, 55-60.
- Barnard, C. The functions of the executive (2nd ed.). Cambridge: Harvard University Press, 1968.
- Barr, A.J., Goodnight, J.H., Sall, J.P., & Helwig, J.T. A user's guide to SAS. Raleigh: SAS Institute Inc., 1976.
- Bass, B.M. A systems survey research feedback for management and organizational development. Journal of Applied Behavioral Science, 1976, 12, 215-229.
- Bass, B.M., & Rosenstein, E. Integration of industrial democracy and participative management: U.S. and European perspectives. In B. King, S. Streufert, & F. Fiedler (Eds.), Managerial control and organizational democracy. Washington: V.H. Winston, 1978.
- Bechard, J.E. The College of Education at Michigan State University as an organization: A survey of the perceptions of its students, faculty, and administrators. Unpublished doctoral dissertation, Michigan State University, 1971.

- Bernhardt, R.G. A study of the relationships between teachers' attitudes toward militancy and their perceptions of selected organizational characteristics of their schools. Unpublished doctoral dissertation, Syracuse University, 1971.
- Blau, P.M. The organization of academic work. New York: John Wiley, 1973.
- Blau, P.M., & Scott, W.R. Formal organizations: A comparative approach. San Francisco: Chandler Publishing Co., 1962.
- Bowers, D.G. Hierarchy, function, and the generalizability of leadership practices. In J.G. Hunt, & L.L. Larson (Eds.), Leadership frontiers. Kent, Ohio: Comparative Administration Research Institute, 1975.
- Bowers, D.G. Systems of organization. Ann Arbor: University of Michigan Press, 1976.
- Bowers, D.G., & Seashore, S.E. Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 1966, 2(2), 238-263.
- Bowers, J.S. Relationship between organizational variables and contemporary practices in small private liberal arts colleges in the state of Ohio. Unpublished doctoral dissertation, Ohio State University, 1976.
- Buckiewicz, D.R. An analysis of leader behavior in physical education departments. Unpublished doctoral dissertation, Ohio State University, 1974.
- Butterfield, D.A., & Farris, G.F. The Likert organization profile: Methodological analysis and test of system 4 theory in Brazil. Journal of Applied Psychology, 1974, 59, 15-23.
- Byrnes, J.L. A study of certain relationships among perceived supervisory style, participativeness, and teacher job satisfaction. Unpublished doctoral dissertation. Syracuse University, 1972.
- Campbell, R.F., & Gregg, R.T. (Eds.). Administrative behavior in education. New York: Harper, 1957.
- Carr, R.W. A study of the job satisfaction of high school principals. Unpublished doctoral dissertation, University of Michigan, 1971.
- Cascio, W.F. Functional specialization, culture, and preference for participative management. Personnel Psychology, 1974, 27, 593-603.
- Case, R.L. An analysis of the communication structure of a university administrative and instructional unit. Unpublished doctoral dissertation, University of Illinois, 1969.

- Cline, T.A. A study of the relationships between Colorado Community college faculty members' attitudes toward collective negotiations and their perceptions of the management styles used in their college. Unpublished doctoral dissertation, University of Colorado, 1974.
- Coladarci, A.P., & Getzels, J.W. The use of theory in educational administration. Stanford: Stanford University Press, 1955.
- Corwin, R.G. Professional persons in public organizations. Educational Administration Quarterly, 1965, 1, 1-22.
- Dannehl, W.E. The organizational climate in physical education administration units in selected mid-western universities. Unpublished doctoral dissertation, University of Illinois, 1970.
- Davis, M.G. Role perceptions and expectations of college physical education chairmen's responsibility priorities by faculty and chairmen. Unpublished doctoral dissertation, Indiana University, 1972.
- DeVries, D.L., & Snyder, J.P. Faculty participation in departmental decision making. Organization Behavior and Human Performance, 1974, 2, 235-249.
- Douglas, J.W. An analysis of administrative leadership in physical education departments. Unpublished doctoral dissertation, Ohio State University, 1969.
- Dressel, P.L., & Reichard, D.J. The university department: Retrospect and prospect. Journal of Higher Education, 1970, 41, 387-402.
- Dykes, A. Faculty participation in academic decision making. Washington: American Council on Education, 1968.
- Epstein, L.D. Governing the university. Washington: Jossey-Bass, 1974.
- Fayol, H. General and industrial management. London: Sir Isaac Pitman & Sons, Ltd., 1949.
- Feitler, F., & Blumberg, A. Changing the organizational character of a school. Elementary School Journal, 1971, 71, 206-215.
- Follett, M.P. Dynamic administration. In H.C. Metcalf, & L. Urwick (Eds.), The collected papers of Mary Parker Follett. New York: Harper, 1942.
- Fox, T.G. The influence of manifest and latent social identities on medical school faculty attitudes. Unpublished doctoral dissertation, University of Michigan, 1973.

- Gardner, C.A., Jr. Faculty participation in departmental administrative activities. Unpublished doctoral dissertation, University of Michigan, 1971.
- Getzels, J.W., & Guba, E.G. Social behavior and the administrative process. The School Review, 1957, 65(4), 423-441.
- Getzels, J.W., Lipham, J.M., & Campbell, R.F. Educational administration as a social process. New York: Harper & Row, 1968.
- Gibson, A.K. The achievement of sixth grade students in a mid western city. Unpublished doctoral dissertation, University of Michigan, 1973.
- Gilbert, E.D. Teaching styles prevalent in satisfying and dissatisfying college credit courses as perceived by adult students. Unpublished doctoral dissertation, Ohio State University, 1972.
- Gore, W.J. Administrative decision making. New York: John Wiley, 1964.
- Gouran, D.S. Discussion: The process of group decision making. New York: Harper & Row, 1974.
- Griffiths, D.E. Administrative theory. New York: Appleton-Century-Crofts, 1959.
- Guba, E.G., & Getzels, J.W. Personality and teacher effectiveness: A problem in theoretical research. Journal of Educational Psychology, 1955, 46(6), 330-344.
- Gulick, L. Notes on the theory of organization. In L. Gulick, & L. Urwick (Eds.), Papers on the Science of Administration. New York: Institute of Public Administration, 1937.
- Gulick, L. Administrative reflections from World War II. Birmingham: University of Alabama Press, 1948.
- Hall, J.W. A comparison of Halpin and Croft's organizational climates and Likert's organizational systems. Unpublished doctoral dissertation, University of Maryland, 1969.
- Halpin, A.W. Theory and research in administration. New York: Macmillan, 1966.
- Hansen, M. Beyond the bureaucratic model. Interchange, 1976-77, 7, 27-38.
- Harkin, R.E. Communications and organizational climate. Unpublished doctoral dissertation, Claremont Graduate School, 1968.

- Hegener, K. (Ed.). Peterson's annual guide to graduate study. Princeton: Peterson's Guides, 1978. (a)
- Hegener, K. (Ed.). Peterson's annual guide to undergraduate study. Princeton: Peterson's Guides, 1978. (b)
- Howard, G.W., & Masonbrink, E. Administration of physical education. New York: Harper & Row, 1963.
- Indik, B.P. Organization size and member participation. Human Relations, 1965, 18, 339-350.
- Javier, E.O. Academic organizational structure and faculty-administrative satisfaction. Unpublished doctoral dissertation, University of Michigan, 1972.
- Johnsen, E. Studies in multiobjective decision models. Studentlitteratur: Economic Research Center in Lund, 1968.
- Keeton, M. Shared authority on campus. Washington: American Association for Higher Education, 1971.
- Kemp, J. Perceptions of leader behavior of selected women physical education administrators. Unpublished doctoral dissertation, University of North Carolina at Greensboro, 1977.
- Lall, B.M. Educational administration: a cooperative venture. Michigan: Andrews University, 1975.
- Langlois, H.V. Analysis of participatory management in selected state colleges. Unpublished doctoral dissertation, University of Connecticut, 1973.
- Laughlin, R.A. A study of organizational climate as perceived by faculty in Colorado community junior colleges. Unpublished doctoral dissertation, University of Colorado, 1973.
- Lasher, W.F. Academic governance in university professional schools. Unpublished doctoral dissertation, University of Michigan, 1975.
- Lepkowski, Sister M.L. Cooperative decision making as related to supportive relations and communication in the senior high school. Unpublished doctoral dissertation, State University of New York at Buffalo, 1970.
- Likert, R. New patterns of management. New York: McGraw-Hill, 1961.
- Likert, R. The human organization. New York: McGraw-Hill, 1967.

- Likert, R., & Bowers, D.G. Organizational theory and Human resource accounting. American Psychologist, 1969, 24(6), 585-592.
- Likert, R., & Likert, J. New ways of dealing with conflict. New York: McGraw-Hill, 1976.
- Maier, N.R.F. Problem-solving discussions & conferences. New York: McGraw-Hill, 1963.
- Maier, N.R.F. Psychology in industry (3rd ed.). Boston: Houghton Mifflin, 1965.
- March, J.G., & Simon, H.A. Organizations. New York: John Wiley, 1958.
- Marrow, A.J., Bowers, D.G., & Seashore, S.E. Management by participation. New York: Harper & Row, 1967.
- McGregor, D. The human side of enterprise. New York: McGraw-Hill, 1960.
- McGregor, D. Leadership and motivation. In W.G. Bennis, & E.H. Schein (eds.), Essays of Douglas McGregor. Cambridge Massachusetts: M.I.T. Press, 1966.
- Millett, J.D. An essay on organization. New York: McGraw-Hill, 1962.
- Moeller, G.H. Bureaucracy and teachers' sense of power. The School Review, 1964, 72, 137-157.
- Moore, H.A. Studies in school administration. Washington: American Association of School Administration, 1957.
- Mortimer, K.P., & McConnell, T.R. Faculty participation in university governance. In C.E. Kruytbosch, & S.L. Messinger (Eds.), The state of the university (2nd ed.). Beverly Hills: Sage Publications, 1970.
- Mulder, M. Power equalization through participation? Administrative Science Quarterly, 1971, 16, 31-38.
- Nash, J.B., Moench, F.J., & Saurborn, J.B. Physical education: Organization and administration. New York: A.S. Barnes, 1951.
- Parsons, T. Structure and process in modern societies (4th ed.). New York: Free Press, 1965.
- Paton, G.A. An analysis of administrative theory in selected graduate administration courses in physical education. Unpublished doctoral dissertation, University of Illinois, 1970.

- Patton, R.T. Interrelationship of organization leadership style, type of work accomplishment, and organizational climate with extrinsic and intrinsic motivation developed within the organization. Unpublished doctoral dissertation, University of Washington, 1969.
- Penny, W.J. An analysis of the meanings attached to selected concepts in administrative theory. Unpublished doctoral dissertation, University of Illinois, 1968.
- Perkins, J.A. (Ed.). The university as an organization. Washington: Jossey-Bass, 1973.
- Platt, G.M., & Parsons, T. Decision making in the academic system. Influence and power exchange. In C.E. Kruytbosch, & S.L. Messinger (Eds.), The state of the university (2nd ed). Beverly Hills: Sage Publications, 1970.
- Porter, L.W., Lawler, E.E., III, & Hackman, J.R. Behavior in organizations. New York: McGraw-Hill, 1975.
- Ritchie, J.B., & Miles, R.E. An analysis of quantity and quality of participation as mediating variables in the participative decision making process. Personnel Psychology, 1970, 23, 347-359.
- Roach, J.H.L. The academic department chairperson: Functions and responsibilities. Educational Record, 1976, 57, 13-23.
- Roethlisberger, F.J., & Dickson, W.J. Management and the worker. Cambridge: Harvard University Press, 1939.
- Rourke, F.E., & Brooks, G.E. The managerial revolution in higher education. Baltimore: Johns Hopkins Press, 1966.
- Ross, R.D. Decentralization of authority in colleges and universities. Research in Higher Education, 1977, 6(2), 97-123.(a)
- Ross, R.D. Faculty qualifications and collegiality. Research in Higher Education, 1977, 6(3), 201-214.(b)
- Salancik, G.R., Calder, B.J., Rowland, K.M., Leblebici, H., & Conway, M. Leadership as an outcome of social structure and process. In J.G. Hunt, & L.L. Larson (Eds.), Leadership frontiers. Kent, Ohio: Comparative Administrative Research Institute, 1975.
- Sergiovanni, T.J. Human resources supervision. In T.J. Sergiovanni (Ed.), Professional supervision for professional teachers. Washington: Association for Supervision and Curriculum Development, 1975.

- Sharman, J.R. Modern principles of physical education. New York: A.S. Barnes, 1937.
- Simon, H.A. Administrative behavior: A study of decision making processes in administrative organization (3rd ed.). New York: Macmillan, 1976.
- Smith, A.B., III. Role expectations for and observations of community college department chairmen: An organizational study of consensus and conformity. Unpublished doctoral dissertation, University of Michigan, 1971.
- Smock, R., & Hake, H. A systematic approach to the evaluation of academic departments. Paper presented at the meeting of the American Education Research Association, New York, April, 1977.
- Soucie, D. An analysis of the perceived actual and ideal profile of organizational characteristics of physical education departments in the colleges of Quebec. Unpublished doctoral dissertation, University of Oregon, 1975.
- Spaeth, M. An analysis of administrative research in physical education and athletics in relation to a research paradigm. Unpublished doctoral dissertation, University of Illinois, 1967.
- Steele, T.W. An analysis of communication patterns within a school of health, physical education, and recreation. Unpublished doctoral dissertation, Ohio State University, 1971.
- Stogdill, R.M. Manual for the Leader Behavior Description Questionnaire Form XII: An experimental revision. Columbus: Ohio State University, 1963 (mimeographed).
- Strauss, G. Some notes on power-equalization. In H.J. Leavett (Ed.), The social science of organizations. New Jersey: Prentice-Hall, 1963.
- Talacchi, S. Organization size, individual attitudes and behavior: an empirical study. Administrative Science Quarterly, 1960, 5, 398-420.
- Tannenbaum, A.S. Control in organizations: Individual adjustment and organizational performance. Administrative Science Quarterly, 1962, 7, 236-257.
- Tannenbaum, A.S. Control in organizations. New York: McGraw-Hill, 1968.
- Taylor, D.W. Decision making and problem solving. In J.G. March (Ed.), Handbook of organizations. Chicago: Rand McNally, 1965.
- Taylor, F.W. Scientific management (3rd ed.). New York: Harper & Brothers, 1947.

- Thompson, D.E. Favorable self-perception, perceived supervisory style, and job satisfaction. Journal of Applied Psychology, 1971, 55, 345-352.
- Vroom, V.H., & Yetton, P.W. Leadership and decision making. Pittsburgh: University of Pittsburgh Press, 1973.
- Wagstaff, L.W. The relationship between administrative systems and interpersonal needs of teachers. Unpublished doctoral dissertation, University of Oklahoma, 1969.
- Weber, J.C., & Lamb, D.R. Statistics and research in physical education. St. Louis: C.V. Mosby, 1970.
- Weber, M. The theory of social and economic organization. New York: Oxford University Press, 1947.
- Weissenberg, P. Introduction to organizational behavior. Scranton, Pennsylvania: Intext Educational Publishers, 1971.
- Wheatley, D., III. A study of the management systems of the junior colleges in the state of Texas. Unpublished doctoral dissertation, University of Houston, 1972.
- White, H.C. Some perceived behavior and attitudes of hospital employees under effective and ineffective supervisors. Journal of Nursing Administration, 1971, 1(1), 49-54. (a)
- White, H.C. Perceptions of leadership styles by nurses in supervisory positions. Journal of Nursing Administration, 1971, 1(2), 44-51. (b)
- Wilken, P.H. Size of organizations and member participation in church organizations. Administrative Science Quarterly, 1971, 16(2), 173-179.
- Williams, J.F. The organization and administration of physical education. New York: Macmillan, 1922.
- Wofford, J.C. Managerial behavior, situational factors, and productivity and moral. Administrative Science Quarterly, 1971, 16(1), 10-17.
- Zand, D. Trust and managerial problem solving. Administrative Science Quarterly, 1972, 17, 229-239.
- Zeigler, E.F. Theoretical propositions for the administration of physical education and athletics. The Academy Papers, 1968, 2, 40-48.

APPENDIX A

Materials Concerning the Profile of Organizational Characteristics

McGraw-Hill Book Company

1221 Avenue of the Americas
New York, New York 10020
Telephone 212/997-2613



December 4, 1978

Copyrights and Permissions Department

Ms. G. Linda Rikard
1802 West Market Street
Greensboro, North Carolina 27403

Dear Ms. Rikard:

Permission is hereby granted for the use of the following material for the purpose specified in your letter of November 25, for one-time non-commercial use in your dissertation only:

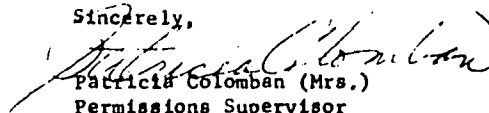
Likert: NEW WAYS OF MANAGING CONFLICT

Profile of Organizational Characteristics

This permission is granted with the understanding that your use of the material is limited to the specified purpose and that a credit line will be footnoted on the first page of each quotation covered by this permission or on the copyright page of the volume in which the material appears. Where illustrations are used, the credit line should appear after the legend. The acknowledgment should read:

"From (title of book) by (author). Copyright (c) (date and owner). Used with permission of McGraw-Hill Book Company."

Sincerely,


Patricia Colomban (Mrs.)
Permissions Supervisor

C:p

PROFILE OF ORGANIZATIONAL CHARACTERISTICS

The Profile of Organizational Characteristics (POC) helps organizations assess their management system by providing a simple means for faculty to briefly describe the system in use in their Department or School that provides programs such as health, physical education, recreation, and dance. The POC asks questions that highlight organizational characteristics in such areas as motivation, communication, decision making, goals and control.

Some items below contain references to "full and part-time administrators". This term refers to all persons who serve in administrative roles such as committee chairpersons and coordinators.

INSTRUCTIONS

1. Indicate your academic rank with an "X".
2. For each item, first place an "N" on the continuum which best describes where you feel your School or Department is at the Present Time (N=NOW). If, for example, on question 1 you feel that now there is "substantial" confidence, place an "N" between spaces 11 to 15 on the continuum. Indicate between spaces 6 to 10 if you think the situation is closer to "con-descending", or between spaces 1 to 5 if you think the situation is closer to "none".
3. Then, on the same continuum for each item place an "L" where you would LIKE for your organization to operate.
4. After completing the scale by answering "N" for NOW and "L" for where you would LIKE for your School or Department to operate for each item, please enclose the scale in the self-addressed envelope provided. Also, place your name on the enclosed postcard indicating that you are returning the scale and return both of these to me.

RANK: _____ Instructor _____ Associate Professor
 _____ Assistant Professor _____ Full Professor

ITEMS:

1	How much confidence is shown in teachers?	None	Condescending	Substantial	Complete
		----- ----- ----- -----			
2	How free do they feel to talk to full and part-time administrators about job?	Not at all	Not very	Rather free	Fully free
		----- ----- ----- -----			
3	Are teachers' ideas sought and used, if worthy?	Seldom	Sometimes	Usually	Always
		----- ----- ----- -----			
4	Is predominant use made of (1) fear, (2) threats, (3) punishment, (4) rewards, (5) involvement?	1, 2, 3, occasionally 4	4, some 3	4, some 3 and 5	5, 4, based on group-set goals
		----- ----- ----- -----			
5	Where is responsibility felt for achieving organization's goals?	Mostly at top	Top and middle	Fairly general	At all levels
		----- ----- ----- -----			
6	What is the direction of information flow?	Downward	Mostly downward	Down and up	Down, up, sideways
		----- ----- ----- -----			
7	How is downward communication accepted?	With suspicion	Possibly with suspicion	With caution	With open mind
		----- ----- ----- -----			

"From New Ways of Managing Conflict by J. Likert, and R. Likert. Copyright (c), 1976, by McGraw-Hill, Inc. Used with permission of McGraw-Hill Book Co."

8. How accurate is upward communication?	Often wrong	Censored for boss	Limited accuracy	Accurate
9. How well do full and part-time administrators know problems faced by teachers?	Know little	Some knowledge	Quite well	Very well
10. What is the character of interaction?	Little, always with fear and distrust	Little, usually with some condescension	Moderate, often fair amount confidence and trust	Extensive, high degree of confidence and trust
11. How much cooperative teamwork is present?	None	Relatively little	Moderate amount	Very substantial
12. At what level are decisions formally made?	Mostly at top	Policy at top, some delegation	Broad policy at top, more delegation	Throughout, but well integrated
13. What is the origin of technical and professional knowledge used in decision making?	Top management	Upper and middle	To certain extent throughout	To a great extent throughout
14. Are teachers involved in decisions related to their work?	Not at all	Occasionally consulted	Generally consulted	Fully involved
15. What does decision making process contribute to motivation?	Nothing, often weakens it	Relatively little	Some contribution	Substantial contribution
16. How are organization goals established?	Orders issued	Orders, some comments invited	After discussion, by orders	Group action (except in crisis)
17. How much covert resistance to goals is present?	Strong resistance	Moderate resistance	Some resistance at times	Little or none
18. How concentrated are evaluation and control functions?	Highly at top	Relatively high at top	Moderate delegation at lower levels	Quite widely shared
19. Is there an informal organization resisting the formal one?	Yes	Usually	Sometimes	No, same goals as formal
20. What are the evaluation information and other control data used for?	Policing, punishment	Reward and punishment	Reward, some self-guidance	Self-guidance, problem solving

APPENDIX B

Materials Concerning Subjects

Letter to Deans and Chairpersons

1802 West Market Street
Greensboro, N.C. 27403
January 3, 1979

Dear

At the present time I am involved in a research study investigating the organizational profile existing in Departments and Schools that offer programs in physical education, and other areas such as health, recreation, and dance. This study is being conducted as part of my doctoral study at the University of North Carolina at Greensboro.

The investigation is concerned with faculty perceptions of the organizational management of their respective Department (Area) or School (College). Subjects are asked to describe how they perceive the management of their organization, and are not asked to judge any personal leadership style. The focus of this study is on the structure of organizations and how their management patterns differ. No personalities are isolated for investigation. All data received from Schools and from Departments are pooled so the two structures can be compared. The research tool is a scale consisting of 20 items.

In order for an institution to be used in this study, the following criteria are necessary: (a) the Department or School must have as its head an administrator who has served for at least three years, (b) both Schools and Departments must have undergraduate and graduate programs, and (c) institutions are chosen from the Southern and Midwest Districts of the U.S. Since your institution meets the criteria for this study and has been randomly chosen, I would like very much to include the members of your faculty in the investigation.

I would greatly appreciate your sending me the names of all full-time faculty whose primary responsibility is teaching and who have served for at least two or more years at your School or Department. Your cooperation in sending such a list will greatly facilitate the speed and accuracy of my mailing process.

A self-addressed envelope is inclosed for your convenience in sending a roster. If you have not served as head of your School for at least

three years, would you inform me, please, so that another institution may be chosen. Your response within two weeks would be most helpful.

Thank you for your cooperation and assistance in this study.

Respectfully yours,

G. Linda Rikard

Dr. Rosemary McGee
(Graduate Advisor)

Letter to Deans and Chairpersons

1802 West Market Street
Greensboro, N.C. 27403
January 29, 1979

Thank you for recently providing me with a list of your faculty as potential participants in my doctoral research study. I am proceeding with the study and will be sending each faculty a scale, the Profile of Organizational Characteristics (POC), for their responses. The POC describes the management characteristics of organizations.

I wish to assure you that this research is descriptive in nature rather than evaluative. Questions are intended to reflect general organizational patterns of Schools and Departments that provide programs in physical education and/or health, dance, and recreation.

Your cooperation has been a great help toward the completion of this study.

Sincerely,

G. Linda Rikard

Initial Letter to Faculty

1802 West Market Street
Greensboro, N.C. 27403
February 5, 1979

At the present time I am involved in a research study investigating the organizational profile existing in Departments and Schools that offer programs in physical education, and/or health, recreation, and dance. This study is being conducted as part of my doctoral work at the University of North Carolina at Greensboro. The investigation is concerned with faculty perceptions of the organizational management system of their respective Departments or Schools. Subjects are asked to describe how they perceive the management of their organization. In order for subjects to participate in this study they must be full-time faculty whose primary responsibility is teaching and who have served in their institutions for at least two or more years.

The research tool is a scale of 20 items. Questions concerning specific leadership are not intended to be evaluative but rather descriptive. For each item you are asked to fill out two responses, one which describes your organization at the present time and another which describes how you would like your organization to operate. Your responsibilities, if you participate in the study, would include stating your academic rank, filling out the enclosed scale along with the enclosed postcard and returning both to me. This would require about 15 minutes of your time.

Your answers will be combined with those of other faculty from several institutions. In no way will your responses be isolated from those of other subjects. Your responses will remain anonymous and confidential. To insure your anonymity a postage metered self-addressed envelope is enclosed so that the postmark of your city is not given. Further, your use of the enclosed postcard informs me that you are returning the scale, yet there is no record of which returned scale is yours. The postcard allows me to send follow-up letters to nonrespondents. I am aware of the right of human subjects, therefore, no coercion will be used to gain your participation and you may withdraw from this study at any time.

Your participation is vital to the completion of this study. I appreciate your time and cooperation and hope to receive your completed questionnaire and postcard within two weeks. Upon your request, the results of this investigation will be sent to you.

Respectfully yours,

G. Linda Rikard

Dr. Rosemary McGee
(Graduate Advisor)

Second Request Letter to Faculty

1802 West Market Street
Greensboro, N.C. 27403
February 17, 1979

You should have received a letter from me about two weeks ago requesting your participation in a doctoral study that I am conducting at the University of North Carolina at Greensboro. This letter contained a 20 item scale and a postcard. You were asked to complete the scale by giving your perceptions of the organizational management existing in your Department (Area) or School (College) offering programs in physical education, and/or health, recreation and dance. You were also asked to fill out the postcard indicating if you were mailing the completed scale. To date your postcard has not been received. I assume, therefore, that you have not mailed the completed scale.

Your participation is vital to the completion of this study. Completing the scale will only take about 15 minutes of your time. I would like very much to add your responses to this data collection. If you plan to mail the scale to me or have decided not to participate in this study, please return the postcard indicating this so that you will not receive a second reminder.

If you have already returned the scale and postcard, please disregard this letter and accept my thanks for your valuable contribution.

Sincerely,

G. Linda Rikard

Third Request Letter to Faculty

1802 West Market Street
Greensboro, N.C. 27403
March 5, 1979

This is a final reminder for soliciting your responses to the scale, Profile of Organizational Characteristics, and the postcard mailed to you about four weeks ago. The purpose of the scale was to analyze the organizational climate which characterizes your Department or School offering programs in physical education, and/or health, recreation, and dance. The postcard allowed you to designate your willingness to participate and your request for research results. Both of these items were to be mailed separately in order to preserve your anonymity.

Your responses to the 20 item scale are important to the completion of this research. Please return the completed scale and postcard on or before March 19, 1979 if you plan to participate. This date is the deadline for all returns.

Thank you for your attention in this matter. Please disregard this reminder if you have returned the scale. I trust that my correspondence has not been an imposition.

Sincerely,

G. Linda Rikard
Graduate Student
University of North Carolina
at Greensboro

Response Card

Name _____

Institution _____

Please check below.

_____ I have completed the scale and have mailed
it.

_____ I do not meet the criteria for participating
in this study or am not interested.

_____ I would like a copy of results.

Colleges and Universities Participating in the Study

Schools

University of Wisconsin at LaCrosse

University of Illinois at Chicago Circle

University of North Carolina at Greensboro

University of Southern Mississippi

Indiana University

Ohio University

Departments

University of Texas at El Paso

Michigan State University

University of Alabama at University

University of Miami

University of North Carolina at Chapel Hill

Southwest Texas State University

University of Texas at Austin

APPENDIX C

General Linear Model for the Seven Organizational Variables

Table 18

General Linear Model for the Leadership Variable

Source	DF	SS	MS	F Value	PR > F
Model	186	38034.399	204.486	3.58	0.0001
Error	168	9545.894	57.059		
Corrected Total	354	47620.29			
Structure	1	645.130		6.36	0.0126
Rank	3	477.773		1.57	0.1966
Structure*Rank	3	103.463		0.34	0.7986
Sub(Structure*Rank)	171	17332.079		1.78	0.0001
Scale	1	17769.983		311.43	0.0001
Structure*Scale	1	350.697		6.15	0.0142
Rank*Scale	3	292.871		1.71	0.1650
Structure*Rank*Scale	3	88.349		0.52	0.6758

Table 19

General Linear Model for the Motivation Variable

Source	DF	SS	MS	F Value	PR > F
Model	176	24200.979	137.506	2.96	0.0001
Error	153	7119.155	46.530		
Corrected Total	329	31320.133			
Structure	1	125.412		1.86	0.1741
Rank	3	178.802		0.89	0.4521
Structure*Rank	3	176.140		0.87	0.4590
Sub(Structure*Rank)	161	10835.142		1.45	0.0108
Scale	1	11098.523		238.52	0.0001
Structure*Scale	1	396.339		8.52	0.004
Rank*Scale	3	205.765		1.47	0.2225
Structure*Rank*Scale	3	146.543		1.05	0.3732

Table 20

General Linear Model for the Communication Variable

Source	DF	SS	MS	F Value	Pr > F
Model	179	73682.523	411.634	4.26	0.0001
Error	161	15544.691	96.55		
Corrected Total	340	89227.214			
Structure	1	462.937		3.60	0.0594
Rank	3	940.075		2.44	0.0651
Structure*Rank	3	411.706		1.07	0.3649
Sub(Structure*Rank)	164	21072.646		1.33	0.0348
Scale	1	41680.998		431.70	0.0001
Structure*Scale	1	423.552		4.39	0.0378
Rank*Scale	3	1047.998		3.62	0.0145
Structure*Rank*Scale	3	211.211		0.73	0.5394

Table 21

General Linear Model for the Interaction Variable

Source	DF	SS	MS	F Value	PR > F
Model	188	22832.134	121.448	4.10	0.0001
Error	172	5098.908	29.645		
Corrected Total	360	27931.042			
Structure	1	338.517		7.95	0.0054
Rank	3	139.245		1.09	0.3551
Structure*Rank	3	35.254		0.28	0.8435
Sub(Structure*Rank)	173	7363.717		1.44	0.0090
Scale	1	13702.147		462.21	0.0001
Structure*Scale	1	185.922		6.27	0.0132
Rank*Scale	3	134.556		1.51	0.2115
Structure*Rank*Scale	3	56.332		0.63	0.5984

Table 22

General Linear Model for the Decision Making Variable

Source	DF	SS	MS	F Value	PR > F
Model	179	96578.014	539.542	4.15	0.0001
Error	158	20564.214	130.153		
Corrected Total	337	117142.228			
Structure	1	1554.596		9.35	0.0026
Rank	3	1065.951		2.14	0.0961
Structure*Rank	3	216.534		0.43	0.7326
Sub(Structure*Rank)	164	27271.73		1.28	0.0608
Scale	1	57382.013		440.88	0.0001
Structure*Scale	1	1052.203		8.08	0.0051
Rank*Scale	3	444.254		1.14	0.3358
Structure*Rank*Scale	3	153.316		0.39	0.7617

Table 23

General Linear Model for the Goal Setting Variable

Source	DF	SS	MS	F Value	PR > F
Model	187	18218.131	97.423	3.53	0.0001
Error	167	4602.827	27.562		
Corrected Total	354	22820.958			
Structure	1	61.253		1.24	0.2662
Rank	3	126.702		0.86	0.4665
Structure*Rank	3	22.575		0.15	0.9246
Sub(Structure*Rank)	172	8467.037		1.79	0.0001
Scale	1	8128.519		294.92	0.0001
Structure*Scale	1	151.344		5.49	0.0203
Rank*Scale	3	52.922		0.64	0.5942
Structure*Rank*Scale	3	70.362		0.85	0.4703

Table 24

General Linear Model for the Control Variable

Source	DF	SS	MS	F Value	PR > F
Model	183	42165.021	230.410	3.64	0.0001
Error	163	10309.769	63.250		
Corrected Total	346	52474.790			
Structure	1	718.584		8.00	0.0051
Rank	3	243.284		0.90	0.4430
Structure*Rank	3	511.783		1.90	0.1299
Sub(Structure*Rank)	168	15088.394		1.42	0.0125
Scale	1	22145.394		350.12	0.0001
Structure*Scale	1	111.096		1.76	0.1869
Rank*Scale	3	139.363		0.73	0.5362
Structure*Rank*Scale	3	65.594		0.35	0.7948